DANGEROUS WASTE REGULATIONS

Chapter 173-303 WAC

AMENDED JUNE 1986

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
OLYMPIA, WASHINGTON 98504

Chapter 173-303 WAC
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DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

173-303-275 Transfer facilities (or collection facilities). [Statutory Authority: Chapter 70.105 RCW and RCW 70.95-.260. 82-05-023 (Order DE 81-33), § 173-303-275, filed 2/10/82.] Repealed by 84-14-031 (Order DE 84-22), filed 6/27/84. Statutory Authority: Chapter 70.105 RCW.

WAC 173-303-010 Purpose. This regulation implements chapter 70.105 RCW, the Hazardous Waste Management Act of 1976 as amended in 1980 and 1983, and implements, in part, chapter 70.105A RCW, and Subtitle C of Public Law 94-580, the Resource Conservation and Recovery Act, which the legislature has empowered the department to implement. The purposes of this regulation are to:

(1) Designate those solid wastes which are dangerous or extremely hazardous to the public health and environment;

(2) Provide for surveillance and monitoring of dangerous and extremely hazardous wastes until they are detoxified, reclaimed, neutralized, or disposed of safely;

(3) Provide the form and rules necessary to establish a system for manifesting, tracking, reporting, monitoring, recordkeeping, sampling, and labeling dangerous and extremely hazardous wastes;

(4) Establish the siting, design, operation, closure, post-closure, financial, and monitoring requirements for dangerous and extremely hazardous waste transfer, treatment, storage, and disposal facilities;

(5) Establish design, operation, and monitoring requirements for managing the state's extremely hazardous waste disposal facility;

(6) Establish and administer a program for permitting dangerous and extremely hazardous waste management facilities; and

(7) Encourage recycling, reuse, reclamation, and recovery to the maximum extent possible. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-010, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-010, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-010, filed 2/10/82. Formerly WAC 173-302-010.]

WAC 173-303-016 Identifying solid waste. (1) Purpose and applicability.

(a) The purpose of this section is to identify those materials that are and are not solid wastes.

(b) (i) The definition of solid waste contained in this section applies only to wastes.that also are dangerous for purposes of the regulations implementing chapter 70.105 RCW. For example, it does not apply to materials (such as nondangerous scrap, paper, textiles, or rubber) that are not otherwise dangerous wastes and that are recycled.

(ii) This section identifies only some of the materials which are solid wastes and dangerous wastes under chapter 70.105 RCW. A material which is not defined as a solid waste in this section, or is not a dangerous waste identified or listed in this section, is still a solid waste and a dangerous waste for purposes of these sections if reason and authority exists under chapter 70.105 RCW and WAC 173-303-960. Within the constraints of chapter 70.105 RCW, this shall include but not be limited to any material that: Is accumulated, used, reused, or handled in a manner that poses a threat to public health or the environment; or, due to the dangerous constituent(s) in it, when used or reused would pose a threat to public health or the environment.

(c) Certain materials are solid wastes but are excluded from the requirements of this chapter by WAC 173-303-071.

(2) The following terms are used and shall have the meanings as defined in WAC 173-303-040:

(a) Boiler	WAC 173-303-040(8)
(b) By-product	WAC 173-303-040(9)
(c) Incinerator	WAC 173-303-040(41)
(d) Industrial furnace	WAC 173-303-040(43)
(e) Reclaim	WAC 173-303-040(72)
(f) Recover	WAC 173-303-040(73)
(g) Recycle	WAC 173-303-040(74)
(h) Used or reused (see reuse or use)	WAC 173-303-040(77)
(i) Sludge	WAC 173-303-040(81)
(j) Scrap metal	WAC 173-303-040(82)
(k) Spent material	WAC 173-303-040(83)

(3) Definition of solid waste.

(a) A solid waste is any discarded material that is not excluded by WAC 173-303-017(2) or that is not excluded by variance granted under WAC 173-303-017(5).

(b) A discarded material is any material which is:

(i) Abandoned, as explained in subsection (4) of this section; or

(ii) Recycled, as explained in subsection (5) of this section; or

(iii) Considered inherently waste-like, as explained in subsection (6) of this section.

(4) Materials are solid waste if they are abandoned by being:

(a) Disposed of; or

(b) Burned or incinerated; or

(c) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(5) Materials are solid wastes if they are recycled—or accumulated, stored, or treated before recycling—as specified in (a) through (d) of this subsection.

(a) Used in a manner constituting disposal. Materials noted with a "*" in column 1 of Table 1 are solid wastes when they are:

(i)(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in WAC 173-303-9903 or which exhibit any of the criteria or characteristics listed in WAC 173-303-100 are not

solid wastes if they are applied to the land and that is their ordinary manner of use.

(b) Burning for energy recovery. Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(i)(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

(C) Contained in fuels (in which case the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in WAC 173-303-9903 or which exhibit any of the criteria or characteristics listed in WAC 173-303-100 are not solid wastes if they are themselves fuels.

(c) Reclaimed. Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed.

(d)(i) Accumulated speculatively. Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

(ii) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least seventy-five percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the seventy-five percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under WAC 173-303-071 (3)(n) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

TABLE 1

	Use constituting disposal WAC 173-303-016 (5)(a)	Energy recovery/ fuel WAC 173-303-016 (5)(b)	Reclamation WAC 173-303-016 (5)(c)	Speculative accumulation WAC 173-303-016 (5)(d)
Spent materials	(*)	(*)	(*)	(*)
Commercial chemical products	(*)	(*)	———	———
By-products listed in WAC 173-303-9904	(*)	(*)	(*)	(*)
Sludges listed in WAC 173-303-9904	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic[1] or criteria[2]	(*)	(*)	———	(*)
Sludges exhibiting a characteristic[1] or criteria[2]	(*)	(*)	———	(*)
Scrap metal	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" are defined in WAC 173-303-040.
[1] The characteristics of dangerous waste are described in WAC 173-303-090.
[2] The dangerous waste criteria are described in WAC 173-303-084 and 173-303-101 through 173-303-103.

(6) Inherently waste-like materials. The following materials are solid wastes when they are recycled in any manner:

(a) Dangerous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(b) The department will use the following criteria to add wastes to (a) of this subsection:

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in WAC 173-303-9905 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health or the environment when recycled.

(7) Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation. Respondents in actions to enforce regulations implementing chapter 70.105 RCW who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the

material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-016, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-016, filed 6/27/84.]

WAC 173-303-017 Recycling processes involving solid waste. (1) The purpose of this section is to identify those materials that are and are not solid wastes when recycled. Certain materials, as described in subsection (2) of this section, would not typically be considered to involve waste management and are exempt from the requirements of this chapter. All recycling processes not exempted by subsection (2) of this section are subject to the recycling requirements of WAC 173-303-120.

(2) General categories of materials that are not solid waste when recycled.

(a) Except as provided in subsection (3) of this section, materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are reclaimed. The material must be returned as a substitute for raw material feedstock, and the process must use raw materials as principal feedstocks.

(b) Except as provided in subsection (3) of this section, the department has determined that the following materials when used as described are not solid wastes:

(i) Pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process;

(ii) Spent pickle liquor which is reused in wastewater treatment at a facility holding a national pollutant discharge elimination system (NPDES) permit, or which is being accumulated, stored, or treated before such reuse;

(iii) Spent sulfuric acid used to produce virgin sulfuric acid.

(3) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (as described in subsection (2)(a) of this section):

(a) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(b) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(c) Materials accumulated speculatively as defined in WAC 173-303-016 (5)(d)(ii); or

(d) Materials listed in WAC 173-303-016(6); or

(e) Any materials that the department determines are being accumulated, used, reused or handled in a manner that poses a threat to public health or the environment.

(4) Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation. Respondents in actions to enforce regulations implementing chapter 70.105 RCW who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition fo. the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

(5) Variances from classification as a solid waste.

(a) In accordance with the standards and criteria in (b) of this subsection and the procedures in subsection (7) of this section, the department may determine on a case-by-case basis that the following recycled materials are not solid wastes:

(i) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in WAC 173-303-016 (5)(d)(ii));

(ii) Materials that are reclaimed and then reused within the original primary production process in which they were generated;

(iii) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered.

(b) Standards and criteria for variances from classification as a solid waste.

(i) The department may grant requests for a variance from classifying as a solid waste those materials that are accumulated speculatively without sufficient amounts being recycled if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. If a variance is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The department's decision will be based on the following standards and criteria:

(A) The manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur (for example, because of past practice, market factors, the nature of the material, or contractual arrangements for recycling);

(B) The reason that the applicant has accumulated the material for one or more years without recycling seventy-five percent of the volume accumulated at the beginning of the year;

(C) The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

(D) The extent to which the material is handled to minimize loss;

(E) Other relevant factors.

(ii) The department may grant requests for a variance from classifying as a solid waste those materials that are

reclaimed and then reused as feedstock within the original primary production process in which the materials were generated if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:

(A) How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;

(B) The prevalence of the practice on an industry-wide basis;

(C) The extent to which the material is handled before reclamation to minimize loss;

(D) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

(E) The location of the reclamation operation in relation to the production process;

(F) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

(G) Whether the person who generates the material also reclaims it;

(H) Other relevant factors.

(iii) The department may grant request for a variance from classifying as a solid waste those materials that have been reclaimed but must be reclaimed further before recovery is completed if, after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). This determination will be based on the following factors:

(A) The degree of processing the material has undergone and the degree of further processing that is required;

(B) The value of the material after it has been reclaimed;

(C) The degree to which the reclaimed material is like an analogous raw material;

(D) The extent to which an end market for the reclaimed material is guaranteed;

(E) The extent to which the reclaimed material is handled to minimize loss;

(F) Other relevant factors.

(6) Variance to be classified as a boiler.

In accordance with the standards and criteria in WAC 173-303-040(8) (definition of "boiler"), and the procedures in subsection (7) of this section the department may determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of boiler contained in WAC 173-303-040(8), after considering the following criteria:

(a) The extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(b) The extent to which the combustion chamber and energy recovery equipment are of integral design; and

(c) The efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(d) The extent to which exported energy is utilized; and

(e) The extent to which the device is in common and customary use as a "boiler" functioning primarily to produce steam, heated fluids, or heated gases; and

(f) Other factors, as appropriate.

(7) Procedures for variances from classification as a solid waste or to be classified as a boiler.

The department will use the following procedures in evaluating applications for variances from classification as a solid waste or applications to classify particular enclosed flame combustion devices as boilers:

(a) The applicant must apply to the department. The application must address the relevant criteria contained in subsections (5)(b) or (6) of this section.

(b) The department will evaluate the application and issue a draft public notice tentatively granting or denying the application. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the locality where the recycler is located. The department will accept comment on the tentative decision for thirty days, and may also hold a public hearing upon request or at its discretion. The department will issue a final decision after receipt of comments and after the hearing (if any), and this decision may not be appealed to the department. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-017, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-017, filed 6/27/84.]

WAC 173-303-020 Applicability. This chapter 173-303 WAC shall apply to all persons who handle dangerous wastes including, but not limited to:

(1) Generators;

(2) Transporters;

(3) Owners and operators of dangerous waste recycling, transfer, storage, treatment, and disposal facilities; and

(4) The operator of the state's extremely hazardous waste management facility. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-020, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-020, filed 2/10/82. Formerly WAC 173-302-020.]

WAC 173-303-030 Abbreviations. The following abbreviations are used in this regulation.

(1) ASTM - American Society for Testing Materials
(2) APHA - American Public Health Association
(3) CDC - Center for Disease Control
(4) CFR - Code of Federal Regulations
(5) DOT - Department of Transportation
(6) °C - degrees Celsius
(7) DW - dangerous waste
(8) DWS - drinking water standards of the Safe Drinking Water Act
(9) EHW - extremely hazardous waste
(10) EP - extraction procedure
(11) EPA - Environmental Protection Agency

(12) °F – degrees Fahrenheit
(13) g – gram
(14) IARC – International Agency for Research on Cancer
(15) kg – kilogram (one thousand grams)
(16) L – liter
(17) lb – pound
(18) LC_{50} – lethal concentration 50 percent kill
(19) LD_{50} – lethal dose 50 percent kill
(20) M – molar (gram molecular weights per liter of solution)
(21) mg – milligram (one thousandth of a gram)
(22) NFPA – National Fire Protection Association
(23) NIOSH – National Institute for Occupational Safety and Health
(24) pH – negative logarithm of the hydrogen ion concentration
(25) POTW – publicly owned treatment works
(26) ppm – parts per million (weight/weight)
(27) RCRA – Resource Conservation and Recovery Act
(28) RCW – Revised Code of Washington
(29) TLm_{96} – toxic limit median, 96 hours
(30) TSD facility – transfer, treatment, storage, or disposal facility
(31) UBC – Uniform Building Code
(32) UFC – Uniform Fire Code
(33) USCG – United States Coast Guard
(34) USGS – United States Geological Survey
(35) WAC – Washington Administrative Code
(36) % – percent
(37) # – number

[Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-030, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-030, filed 2/10/82. Formerly WAC 173-302-030.]

WAC 173-303-040 Definitions. When used in this regulation, the following terms have the meanings given below.

(1) "Active portion" means that portion of a facility which is not a closed portion (subsection (11) of this section), and where dangerous waste recycling, reuse, reclamation, transfer, treatment, storage or disposal operations are being or have been conducted after:

(a) The effective date of the waste's designation by 40 CFR Part 261; and

(b) March 10, 1982, for wastes designated only by this chapter and not designated by 40 CFR Part 261. (See also "closed portion" and "inactive portion.")

(2) "Acutely hazardous waste" means dangerous waste sources (listed in WAC 173-303-9904) F020, F021, F022, F023, F026, or F027, and discarded chemical products (listed in WAC 173-303-9903) that are identified with a dangerous waste number beginning with a "P" or that show an "X" or "A" in the reason for designation column.

(3) "Aquatic LC_{50}" (same as TLm_{96}) means a concentration in mg/L (ppm) which kills in 96 hours half of a group of ten or more of a medium sensitivity warm water species of fish such as Lepomis macrochirus (bluegill) or Pimephales promelas (flathead minnow), or cold water species such as salmonidae, when using the testing method described in WAC 173-303-110.

(4) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

(5) "Asbestos containing waste material" means any waste that contains more than one percent asbestos by weight and that can be crumbled, pulverized, or reduced to powder when dry, by hand pressure.

(6) "Batch" means any waste which is generated less frequently than once a month.

(7) "Berm" means the shoulder of a dike.

(8) "Boiler" means an enclosed device using controlled flame combustion and having the following characteristics:

(a)(i) The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(ii) The unit's combustion chamber and primary energy recovery section(s) must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: Process heaters (units that transfer energy directly to a process stream), and fluidized bed combustion units; and

(iii) While in operation, the unit must maintain a thermal energy recovery efficiency of at least sixty percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(iv) The unit must export and utilize at least seventy-five percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

(b) The unit is one which the department has determined, on a case-by-case basis, to be a boiler, after considering the standards in WAC 173-303-017(6).

(9) "By-product" means a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(10) "Carcinogenic" means a material known to contain an IARC positive or suspected, human or animal carcinogen.

(11) "Closed portion" means that portion of a facility which an owner or operator has closed, in accordance with the approved facility closure plan and all applicable closure requirements.

(12) "Closure" means the requirements placed upon all TSD facilities to ensure that all such facilities are closed in an acceptable manner (see also "post-closure").

(13) "Compliance procedure" shall mean any proceedings instituted pursuant to the Hazardous Waste Disposal Act as amended in 1980 and 1983, and chapter 70.105A RCW, or regulations issued under authority of state law, which seeks to require compliance, or which is in the nature of an enforcement action or an action to cure a violation. A compliance procedure includes a notice of intention to terminate a permit pursuant to WAC 173-303-830(5), or an application in the state superior court for appropriate relief under the Hazardous Waste Management Act. A compliance procedure is considered to be pending from the time a notice of violation or of intent to terminate a permit is issued or judicial proceedings are begun, until the department notifies the owner or operator in writing that the violation has been corrected or that the procedure has been withdrawn or discontinued.

(14) "Constituent" or "dangerous waste constituent" means a chemically distinct component of a dangerous waste stream or mixture.

(15) "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

(16) "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of dangerous waste or dangerous waste constituents which could threaten the public health or environment.

(17) "Contract" means the written agreement signed by the department and the state operator.

(18) "Dangerous wastes" means those solid wastes designated in WAC 173-303-070 through 173-303-103 as dangerous or extremely hazardous waste. As used in this chapter, the words "dangerous waste" will refer to the full universe of wastes regulated by this chapter (including dangerous and extremely hazardous waste), while the abbreviation "DW" will refer to that part of the regulated universe which is dangerous only, and not extremely hazardous. (See also "extremely hazardous waste" and "hazardous waste" definitions.)

(19) "Department" means the department of ecology.

(20) "Dermal LD_{50}" means the single dosage in milligrams per kilogram (mg/kg) body weight which, when dermally (skin) applied for 24 hours, within 14 days kills half of a group of ten rabbits each weighing between 2.0 and 3.0 kilograms.

(21) "Designated facility" means the facility designated by the generator on the manifest to receive a dangerous waste shipment and which is authorized pursuant to this chapter or RCRA to recycle or manage dangerous waste.

(22) "Dike" means an embankment or ridge of natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other substances.

(23) "Director" means the director of the department of ecology.

(24) "Discharge" or "dangerous waste discharge" means the accidental or intentional release of hazardous substances, dangerous waste or dangerous waste constitutents such that the substance, waste or a waste constituent may enter or be emitted into the environment. Release includes, but is not limited to, the actions of: Spilling, leaking, pumping, pouring, emitting, dumping, emptying, depositing, placing, or injecting.

(25) "Disposal" means the discharging, discarding, or abandoning of dangerous wastes or the treatment, decontamination, or recycling of such wastes once they have been discarded or abandoned. This includes the discharge of any dangerous wastes into or on any land, air, or water.

(26) "Draft permit" means a document prepared under WAC 173-303-840 indicating the department's tentative decision to issue or deny, modify, revoke and reissue, or terminate a permit. A notice of intent to terminate or deny a permit are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination as discussed in WAC 173-303-830 is not a draft permit.

(27) "Elementary neutralization unit" means a device which:

(a) Is used for neutralizing wastes which are dangerous wastes only because they exhibit the corrosivity characteristics defined in WAC 173-303-090 or are listed in WAC 173-303-081, or in 173-303-082 only for this reason; and

(b) Meets the definition of tank, container, transport vehicle, or vessel.

(28) "EPA/state identification number" or "EPA/state ID#" means the number assigned by EPA or by the department of ecology to each generator, transporter, and TSD facility.

(29) "Extremely hazardous waste" means those dangerous wastes designated in WAC 173-303-070 through 173-303-103 as extremely hazardous. The abbreviation "EHW" will be used in this chapter to refer to those dangerous wastes which are extremely hazardous. (See also "dangerous waste" and "hazardous waste" definitions.)

(30) "Facility" means all contiguous land, and structures, other appurtenances, and improvements on the land used for recycling, reusing, reclaiming, transferring, storing, treating, or disposing of dangerous waste. Unless otherwise specified in this chapter, the terms "facility," "treatment, storage, disposal facility," "TSD facility," "dangerous waste facility" or "waste management facility" shall be used interchangeably.

(31) "Food chain crops" means tobacco, crops grown for human consumption, and crops grown to feed animals whose products are consumed by humans.

(32) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

(33) "Fugitive emissions" means the emission of contaminants from sources other than the control system exit point. Material handling, storage piles, doors, windows and vents are typical sources of fugitive emissions.

(34) "Generator" means any person, by site, whose act or process produces dangerous waste or whose act first causes a dangerous waste to become subject to regulation.

(35) "Genetic properties" means those properties which cause or significantly contribute to mutagenic, teratogenic, or carcinogenic effects in man or wildlife.

(36) "Ground water" means water which fills voids below the land surface and in the earth's crust.

(37) "Halogenated hydrocarbons" (HH) means any organic compounds which, as part of their composition, include one or more atoms of fluorine, chlorine, bromine, iodine, or astatine. The requirements of this chapter apply to only those halogenated hydrocarbons which can be obtained using the testing method described in WAC 173-303-110, testing methods, and which are persistent dangerous wastes.

(38) "Hazardous substances" means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical or biological properties described in WAC 173-303-090, 173-303-101, 173-303-102, or 173-303-103.

(39) "Hazardous wastes" means those solid wastes designated by 40 CFR Part 261, and regulated as hazardous waste by the United States EPA. This term will never be abbreviated in this chapter to avoid confusion with the abbreviations "DW" and "EHW." (See also "dangerous waste" and "extremely hazardous waste" definitions.)

(40) "Inactive portion" means that portion of a facility which has not recycled, treated, stored, or disposed dangerous waste after:

(a) The effective date of the waste's designation, for wastes designated under 40 CFR Part 261; and

(b) March 10, 1982, for wastes designated only by this chapter and not designated by 40 CFR Part 261.

(41) "Incinerator" means any enclosed device using controlled flame combustion that neither meets the criteria for classification as a boiler nor is listed as an industrial furnace.

(42) "Incompatible waste" means a dangerous waste which is unsuitable for placement in a particular device or facility because it may corrode or decay the containment materials, or is unsuitable for mixing with another waste or material because the mixture might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, fumes, mists, or gases, or flammable fumes or gases.

(43) "Industrial-furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use controlled flame devices to accomplish recovery of materials or energy; cement kilns, lime kilns, aggregate kilns, phosphate kilns, blast furnaces, smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters and foundry furnaces), titanium dioxide chloride process oxidation reactors, coke ovens, methane reforming furnaces, combustion devices used in the recovery of sulfur values from spent sulfuric acid, and pulping liquor recovery furnaces. The department may decide to add devices to this list on the basis of one or more of the following factors:

(a) The device is designed and used primarily to accomplish recovery of material products;

(b) The device burns or reduces secondary materials as ingredients in an industrial process to make a material product;

(c) The device burns or reduces secondary materials as effective substitutes for raw materials in processes using raw materials as principal feedstocks;

(d) The device burns or reduces raw materials to make a material product;

(e) The device is in common industrial use to produce a material product; and

(f) Other factors, as appropriate.

(44) "Infectious waste" means organisms or materials listed in WAC 173-303-083, infectious dangerous wastes.

(45) "Inhalation LC_{50}" means a concentration in milligrams of substance per liter of air which, when administered to the respiratory tract for 4 hours, kills within 14 days half of a group of ten rats each weighing between 200 and 300 grams.

(46) "Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the waste or reagents used to treat the waste.

(47) "Interim status permit" means a temporary permit given to TSD facilities which qualify under WAC 173-303-805.

(48) "Landfill" means a disposal facility, or part of a facility, where dangerous waste is placed in or on land and which is not a land treatment facility, a surface impoundment, or an injection well.

(49) "Land treatment" means the practice of applying dangerous waste onto or incorporating dangerous waste into the soil surface so that it will degrade or decompose. If the waste will remain after the facility is closed, this practice is disposal.

(50) "Leachate" means any liquid, including any components suspended in the liquid, that has percolated through or drained from dangerous waste.

(51) "Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

(52) "Liner" means a continuous layer of man-made or natural materials which restrict the escape of dangerous waste, dangerous waste constituents, or leachate through the sides, bottom, or berms of a surface impoundment, waste pile, or landfill.

(53) "Major facility" means a facility or activity classified by the department as major.

(54) "Manifest" means the shipping document, prepared in accordance with the requirements of WAC 173-303-180, which is used to identify the quantity, composition, origin, routing, and destination of a dangerous waste while it is being transported to a point of transfer, disposal, treatment, or storage.

(55) "Moderate risk waste" means any dangerous waste that is solid only (nonliquid, nonaqueous, nongaseous), that is not a regulated hazardous waste under 40 CFR Part 261, and that is designated as only DW in WAC 173-303-090, 173-303-101, 173-303-102 or 173-303-103. Any solid waste that is EHW or that is regulated by the United States EPA as hazardous waste cannot be a moderate risk waste.

(56) "NIOSH registry" means the registry of toxic effects of chemical substances which is published by the National Institute for Occupational Safety and Health.

(57) "Nonsudden accident" or "nonsudden accidental occurrence" means an unforeseen and unexpected occurrence which takes place over time and involves continuous or repeated exposure.

(58) "Occurrence" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage which the owner or operator neither expected nor intended to occur.

(59) "On-site" means the same, geographically contiguous, or bordering property. Travel between two properties divided by a public right of way, and owned, operated, or controlled by the same person, shall be considered on-site travel if: (a) The travel crosses the right of way at a perpendicular intersection; or, (b) the right of way is controlled by the property owner and is inaccessible to the public.

(60) "Operator" means the person responsible for the overall operation of a facility. (See also "state operator.")

(61) "Oral LD_{50}" means the single dosage in milligrams per kilogram (mg/kg) body weight, when orally administered, which, within 14 days, kills half a group of ten or more white rats each weighing between 200 and 300 grams.

(62) "Permit" means an authorization which allows a person to perform dangerous waste transfer, storage, treatment, or disposal operations, and which typically will include specific conditions for such facility operations. Permits must be issued by one of the following:

(a) The department, pursuant to this chapter;

(b) United States EPA, pursuant to 40 CFR Part 270; or

(c) Another state authorized by EPA, pursuant to 40 CFR Part 271.

(63) "Permit-by-rule" means a provision of this chapter stating that a facility or activity is deemed to have a dangerous waste permit if it meets the requirements of the provision.

(64) "Persistence" means the quality of a material which retains more than half of its initial activity after one year (365 days) in either a dark anaerobic or dark aerobic environment at ambient conditions.

(65) "Person" means any person, firm, association, county, public or municipal or private corporation, agency, or other entity whatsoever.

(66) "Pesticide" means but is not limited to: Any substance or mixture of substances intended to prevent, destroy, control, repel, or mitigate any insect, rodent, nematode, mollusk, fungus, weed, and any other form of plant or animal life, or virus (except virus on or in living man or other animal) which is normally considered to be a pest or which the department of agriculture may declare to be a pest; any substance or mixture of substances intended to be used as a plant regulator, defoliant, or desiccant; any substance or mixture of substances intended to be used as spray adjuvant; and, any other substance intended for such use as may be named by the department of agriculture by regulation. Herbicides, fungicides, insecticides, and rodenticides are pesticides for the purposes of this chapter.

(67) "Pile" means any noncontainerized accumulation of solid, nonflowing dangerous waste that is used for treatment or storage.

(68) "Point source" means any confined and discrete conveyance from which pollutants are or may be discharged. This term includes, but is not limited to, pipes, ditches, channels, tunnels, wells, cracks, containers, rolling stock, concentrated animal feeding operations, or watercraft, but does not include return flows from irrigated agriculture.

(69) "Polycyclic aromatic hydrocarbons" (PAH) means those hydrocarbon molecules composed of two or more benzene rings. For the purposes of this chapter, the PAH of concern for designation are only those PAH with more than three rings and less than seven rings.

(70) "Post-closure" means the requirements placed upon disposal facilities (e.g., landfills, impoundments closed as disposal facilities, etc.) after closure to ensure their environmental safety for a number of years after closure. (See also "closure.")

(71) "Publicly owned treatment works" or "POTW" means any device or system, owned by the state or a municipality, which is used in the treatment, recycling, or reclamation of municipal sewage or liquid industrial wastes. This term includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW.

(72) "Reclaim" means to process a material in order to recover useable products, or to regenerate the material. Reclamation is the process of reclaiming.

(73) "Recover" means extract a useable material from a solid or dangerous waste through a physical, chemical, biological, or thermal process. Recovery is the process of recovering.

(74) "Recycle" means to use, reuse, or reclaim a material.

(75) "Regulated unit" means any new or existing surface impoundment, landfill, land treatment area or waste pile that receives any dangerous waste after:

(a) January 26, 1983 for wastes regulated by 40 CFR Part 261;

(b) October 31, 1984 for wastes designated only by this chapter and not regulated by 40 CFR Part 261; or

(c) The date six months after a waste is newly identified by amendments to 40 CFR Part 261 or this chapter which cause the waste to be regulated.

(76) "Representative sample" means a sample which can be expected to exhibit the average properties of the sample source.

(77) "Reuse or use" means to employ a material either:

(a) As an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(b) In a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment).

(78) "Run-off" means any rainwater, leachate, or other liquid which drains over land from any part of a facility.

(79) "Run-on" means any rainwater, leachate, or other liquid which drains over land onto any part of a facility.

(80) "Schedule of compliance" means a schedule of remedial measures in a permit including an enforceable sequence of interim requirements leading to compliance with this chapter.

(81) "Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility. This term does not include the treated effluent from a wastewater treatment plant.

(82) " Scrap metal" means bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled.

(83) "Spent material" means any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

(84) "State operator" means the person responsible for the overall operation of the state's extremely hazardous waste facility on the Hanford Reservation.

(85) "Storage" means the holding of dangerous waste for a temporary period. "Accumulation" of dangerous waste, by the generator on the site of generation, is not storage as long as the generator complies with the applicable requirements of WAC 173-303-200 and 173-303-201.

(86) "Sudden accident" means an unforeseen and unexpected occurrence which is not continuous or repeated in nature.

(87) "Surface impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), and which is designed to hold an accumulation of liquid dangerous wastes or dangerous wastes containing free liquids. The term includes holding, storage, settling, and aeration pits, ponds, or lagoons, but does not include injection wells.

(88) "Tank" means a stationary device designed to contain an accumulation of dangerous waste, and which is constructed primarily of nonearthen materials to provide structural support.

(89) "Thermal treatment" means the use of a device which uses primarily elevated temperatures to treat a dangerous waste.

(90) "TLm_{96}" means the same as "Aquatic LC_{50}."

(91) "Totally enclosed treatment facility" means a facility for treating dangerous waste which is directly connected to a production process and which prevents the release of dangerous waste or dangerous waste constituents into the environment during treatment.

(92) "Toxic" means having the properties to cause or to significantly contribute to death, injury, or illness of man or wildlife.

(93) "Transfer facility" or "collection facility" means a facility at which dangerous waste shipments are collected, consolidated, and stored for more than ten days before transfer to a storage, treatment, or disposal facility.

(94) "Transportation" means the movement of dangerous waste by air, rail, highway, or water.

(95) "Transporter" means a person engaged in the off-site transportation of dangerous waste.

(96) "Travel time" means the period of time necessary for a dangerous waste constituent released to the soil (either by accident or intent) to enter any on-site or off-site aquifer or water supply system.

(97) "Treatment" means the physical, chemical, or biological processing of dangerous waste to make such wastes nondangerous or less dangerous, safer for transport, amenable for energy or material resource recovery, amenable for storage, or reduced in volume.

(98) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which dangerous wastes are degraded, transformed or immobilized.

(99) "Triple rinsing" means the cleaning of containers in accordance with the requirements of WAC 173-303-160 (2)(b), containers.

(100) "Underground injection" means the subsurface emplacement of fluids through a bored, drilled, or driven well, or through a dug well, where the depth of the dug well is greater than the largest surface dimension.

(101) "Unsaturated zone" means the zone between the land surface and the water table.

(102) "Uppermost aquifer" means the geological formation nearest the natural ground surface that is capable of yielding ground water to wells or springs. It includes lower aquifers that are hydraulically interconnected with this aquifer within the facility property boundary.

(103) "Water or rail (bulk shipment)" means the bulk transportation of dangerous waste which is loaded or

carried on board a vessel or railcar without containers or labels.

(104) "Waste water treatment unit" means a device which:

(a) Is part of a waste water treatment facility which is subject to regulation under either:

(i) Section 402 or section 307(b) of the Federal Clean Water Act; or

(ii) Chapter 90.48 RCW, State Water Pollution Control Act, provided that any dangerous waste treated at the facility is designated only by this chapter 173-303 WAC and is not regulated as hazardous waste under 40 CFR Part 261; and

(b) Handles dangerous waste as defined in WAC 173-303-070 through 173-303-103 in either of the following manner:

(i) Receives and treats or stores an influent dangerous waste water; or

(ii) Generates and accumulates or treats or stores a dangerous waste water treatment sludge; and

(c) Meets the definition of tank in WAC 173-303-040.

(105) "Existing TSD facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980, for wastes designated by 40 CFR Part 261, or August 9, 1982, for wastes designated only by this chapter and not designated by 40 CFR Part 261. A facility has commenced construction if the owner or operator has obtained permits and approvals necessary under federal, state and local statutes, regulations and ordinances and either:

(a) A continuous on-site, physical construction program has begun; or

(b) The owner or operator has entered into contractual obligation, which cannot be cancelled or modified without substantial loss, for physical construction of the facility to be completed within a reasonable time.

(106) "New TSD facility" means a facility which began operation or for which construction commenced after November 19, 1980, for wastes designated by 40 CFR Part 261, or August 9, 1982, for wastes designated only by this chapter and not designated by 40 CFR Part 261.

Any terms used in this chapter which have not been defined in this section shall have either the same meaning as set forth in Title 40 CFR Parts 260, 264, 270, and 124 or else shall have their standard, technical meaning.

As used in this chapter, words in the masculine gender also include the feminine and neuter genders, words in the singular include the plural, and words in the plural include the singular. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-040, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-040, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-040, filed 2/10/82. Formerly WAC 173-302-040.]

WAC 173-303-045 References to EPA's hazardous waste and permit regulations. Any references in this chapter to any parts, subparts, or sections from EPA's Hazardous Waste Regulations, including 40 CFR Parts 260 through 270 and Part 124, shall be in reference to those rules as they existed on June 3, 1986, with the exception of rules adopted by EPA pursuant to the Hazardous and Solid Waste Amendments of 1984 (HSWA), Public Law 98-616, amending RCRA. Copies of the appropriate referenced federal requirements are available upon request from the department. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-045, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-045, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-045, filed 2/10/82.]

WAC 173-303-050 Department of ecology cleanup authority. The department may conduct or contract for the removal of dangerous wastes or hazardous substances where there has been or is a potential for discharge or release, regardless of quantity or concentration, which could pose a threat to public health or the environment. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-050, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-050, filed 2/10/82. Formerly WAC 173-302-060.]

WAC 173-303-060 Notification and identification numbers. (1) Any person who generates, transports, offers for transport, or transfers a dangerous waste, or who owns or operates a dangerous waste TSD facility shall have a current EPA/state identification number (EPA/state ID#). Any person who offers a dangerous waste to a transporter or to a dangerous waste TSD facility which does not have an EPA/state ID#, or whose EPA/state ID# has been cancelled, closed, or withdrawn, shall be in violation of this regulation.

(2) Every person who must have an EPA/state ID#, and who has not already received his ID#, must notify the department by obtaining and completing a Washington state notification of dangerous waste activities, Form 2, and submitting the completed form to the department. Any person already assigned an EPA/state ID# must submit a revised notification Form 2 to the department prior to any changes to his company's name, mailing address, ownership, physical location, or type of dangerous waste activity. Any change in location will require the issuance of a new EPA/state ID#. An EPA/state ID# may not be used at new company locations. Notification of dangerous waste activities, Form 2 and instructions for its completion may be obtained by contacting the department.

(3) Any person with an EPA/state ID# may request that his ID# be withdrawn if he will no longer be handling dangerous waste at the site the ID# has been assigned to. Any person whose ID# has been withdrawn must notify the department before he uses the ID# at any later date. Notification must be in writing, except in

the case of emergencies (e.g., fires, spills, etc.) such notification may be provided by telephone first, and followed within one week by a written notification. Withdrawal will only be granted if an ID# will not be used for at least two years.

(4) Any person with an EPA/state ID# may request that his ID# be cancelled or closed if he will no longer occupy the site. Notification must be in writing. An EPA/state ID# shall be considered cancelled or closed only after issuance of written confirmation by the department.

(5) Any person with a current EPA/state ID# must submit an annual report as required by WAC 173-303-220 and 173-303-390. Any person that has withdrawn, closed, or cancelled their ID# and received confirmation from the department must submit an annual report for the calendar year in which their request was approved. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-060, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-060, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-060, filed 2/10/82.]

WAC 173-303-070 Designation of dangerous waste. (1) Purpose and applicability.

(a) This section describes the procedures for determining whether or not a solid waste is DW or EHW.

(b) The procedures in this section are applicable to any person who generates a solid waste (including recyclable materials) that is not exempted or excluded by this chapter or by the department. Any person who must determine whether or not his solid waste is designated must follow the procedures set forth in subsection (3) of this section. Any person who determines by these procedures that his waste is designated DW or EHW shall be subject to all applicable requirements of this chapter.

(2)(a) Once a material has been determined to be a dangerous waste, then any solid waste generated from the recycling, treatment, storage, or disposal of that dangerous waste is a dangerous waste unless and until:

(i)(A) It does not exhibit any of the characteristics of WAC 173-303-090; and

(B) If it was a listed waste under WAC 173-303-080 through 173-303-083 has been exempted pursuant to WAC 173-303-910(3); or

(ii) If originally designated only through WAC 173-303-084 or 173-303-101 through 173-303-103, does not exhibit any of the criteria of WAC 173-303-101 through 173-303-103.

Such solid waste shall include but not be limited to any sludge, spill residue, ash emission control dust, leachate, or precipitation run-off. Precipitation run-off will not be considered a dangerous waste if it can be shown that the run-off has not been contaminated with the dangerous waste, or that the run-off is adequately addressed under existing state laws (e.g. chapter 90.48 RCW), or that the run-off does not exhibit any of the criteria or characteristics described in WAC 173-303-100.

(b) Materials that are reclaimed from solid wastes and that are used beneficially (as provided in WAC 173-303-016 and 173-303-017) are not solid wastes and hence are not dangerous wastes under this section unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.

(3) Designation procedures.

(a) To determine whether or not his waste is designated a person shall check his waste against the following sections, and in the following order:

(i) First, Discarded chemical products, WAC 173-303-081;

(ii) Second, Dangerous waste sources, WAC 173-303-082;

(iii) Third, Infectious dangerous wastes, WAC 173-303-083;

(iv) Fourth, Dangerous waste mixtures, WAC 173-303-084; and

(v) Last, Dangerous waste characteristics, WAC 173-303-090.

(b) In addition to the designation procedures specified in (a) of this subsection, a person may choose or may be required under subsection (4) of this section to check his waste against the following sections, and in the following order:

(i) First, Toxic dangerous wastes, WAC 173-303-101;

(ii) Second, Persistent dangerous wastes, WAC 173-303-102;

(iii) Last, Carcinogenic dangerous wastes, WAC 173-303-103.

(c) A person shall check each section, in the order set forth, until he determines that his waste is designated. Once his waste is designated through the lists or characteristics, he need not determine any other designations for his waste, except as required by subsection (4) or (5) of this section. For the purposes of designating through the criteria, if a person determines that his waste is designated DW, then he must assure that it is not also EHW by checking it against the remaining sections. If the designation procedures identify a waste as both EHW and DW (e.g., a waste may be DW for corrosivity and EHW for EP toxicity), the waste must be designated EHW. If a person has checked his waste against each section that he is required by this section to check and his waste is not designated, then his waste is not subject to the requirements of chapter 173-303 WAC.

Any person who wishes to seek an exemption for a waste which has been designated DW or EHW shall comply with the requirements of WAC 173-303-072.

(4) Criteria designation required. Notwithstanding any other provisions of this chapter, the department may require any person to determine whether or not his waste is designated under the dangerous waste criteria, WAC 173-303-100 through 173-303-103, if the department has reason to believe that his waste would be designated DW or EHW by the dangerous waste criteria, or if the department has reason to believe that his waste is designated improperly (e.g., the waste has been designated DW but should actually be designated EHW by the criteria). If a person, pursuant to the requirements of this

subsection, determines that his waste is a dangerous waste or that its designation must be changed, then he shall be subject to the applicable requirements of this chapter 173-303 WAC. The department shall base a requirement to designate a waste by the dangerous waste criteria on evidence that includes, but is not limited to:

(a) Test information indicating that the person's waste may be DW or EHW;

(b) Evidence that the person's waste is very similar to another persons' already designated DW or EHW;

(c) Evidence that the persons' waste has historically been a DW or EHW; or

(d) Evidence or information about a person's manufacturing materials or processes which indicate that his wastes may be DW or EHW.

(5) Special knowledge. If a generator has designated his waste under the dangerous waste lists, WAC 173-303-080 through 173-303-084, and has knowledge that his waste also exhibits any of the dangerous waste characteristics, WAC 173-303-090, or that his waste also meets any of the dangerous waste criteria, WAC 173-303-101 through 173-303-103, or both, then he shall also designate his waste in accordance with those dangerous waste characteristics, or criteria, or both.

(6) Dangerous waste numbers. When a person is reporting or keeping records on a dangerous waste, he shall use all the dangerous waste numbers which he knows are assignable to his waste from the dangerous waste lists, characteristics, or criteria. For example, if his waste is ignitable *and* contains extremely hazardous concentrations of halogenated hydrocarbons, he shall use the dangerous waste numbers of D001 and WP01. This shall not be construed as requiring a person to designate his waste beyond those designation requirements set forth in subsections (2), (3), (4), and (5) of this section.

(7) Quantity exclusion limits; aggregated waste quantities.

(a) Quantity exclusion limits. In each of the designation sections describing the lists, characteristics, and criteria, quantity exclusion limits (QEL) are identified. The QEL are used to distinguish when a dangerous waste is only subject to the small quantity generator provisions, and when a dangerous waste is fully subject to the requirements of this chapter. Any solid waste which is not excluded or exempted and which is listed by or exhibits the characteristics or criteria of this chapter is a dangerous waste. Small quantity generators who produce dangerous waste below the QEL are subject to certain requirements described in subsection (8) of this section.

(b) Aggregated waste quantities. A person may be generating, accumulating, or storing more than one kind of dangerous waste identified by this chapter. In such cases, the person must consider the aggregate quantity of his wastes when determining whether or not his waste amounts exceed the specific quantity exclusion limits (QEL). Waste quantities must be aggregated for all wastes with common QEL's. For the purposes of this subsection, when aggregating waste quantities, a person shall include in his calculation dangerous wastes produced by on-site treatment or recycling of dangerous wastes and dangerous wastes being accumulated or stored. For example, if a person generates, accumulates, or stores 300 pounds of an ignitable waste and 300 pounds of a persistent waste, then both wastes are regulated because their aggregate waste quantity (600 pounds) exceeds their common QEL of 400 pounds. On the other hand, if a person generates, accumulates, or stores one pound of an EHW discarded chemical product and 300 pounds of a corrosive waste, their quantities would not be aggregated because they do not share a common QEL (2.2 pounds and 400 pounds, respective QEL's). Additional guidance on aggregating waste quantities is available from the department.

(c) The following are categories of waste that are excluded from the quantity determination and need not be aggregated as required by (b) of this subsection when calculating total waste quantities.

(i) Dangerous waste that is recycled and that is excluded from regulation under WAC 173-303-120 (2)(a), (3)(d) or (e) is not included in the quantity determinations of this section and is not subject to any requirements of this section.

(ii) (Reserved.)

(8) Small quantity generators.

(a) A person is a small quantity generator and is subject to the requirements of this subsection if his waste is designated under subsection (3) of this section, and the quantity of waste that he generates, accumulates, or stores (or the aggregated quantity if he generates more than one kind of waste) does not exceed the quantity exclusion limit for such waste (or wastes). If a person generates, accumulates, or stores any dangerous wastes that exceed the QEL, then all dangerous waste generated, accumulated, or stored by that person is subject to the requirements of this chapter. For example, if a person generates four pounds of an EHW discarded chemical product (QEL is 2.2 pounds) and 200 pounds of an ignitable waste (QEL is 400 pounds), then both wastes are fully regulated, and the person is not a small quantity generator for either waste. A small quantity generator may accumulate such listed or characteristic waste on-site, however when the quantity (or aggregate quantity) on-site at any time exceeds the quantity exclusion limit for such waste (or wastes) he will not be a small quantity generator and will be subject to all applicable requirements of this chapter. A small quantity generator who generates, accumulates, or stores waste in excess of the quantity exclusion limit and becomes subject to the full requirements of this chapter cannot again be a small quantity generator until after all dangerous waste on-site at the time he became fully regulated have been removed, treated, or disposed.

(b) A small quantity generator will not be subject to the requirements of this chapter if he:

(i) Complies with subsections (1), (2), (3), and (4) of this section; and

(ii) Either treats or disposes of his dangerous waste in an on-site facility, or ensures delivery to an off-site facility, either of which is:

(A) Permitted (including permit-by-rule, interim status, or final status) under WAC 173-303-800 through 173-303-840;

(B) Authorized to manage dangerous waste by another state with a hazardous waste program approved under 40 CFR Part 271, or by EPA under 40 CFR Part 270;

(C) Permitted to manage municipal or industrial solid waste in accordance with state or local regulations, or in accordance with another state's solid waste laws if the waste is sent out of state; or

(D) A facility that beneficially uses or reuses, or legitimately recycles or reclaims his dangerous waste, or that treats his waste prior to such recycling activities.

(c) If a small quantity generator's dangerous wastes are mixed with used oil, the mixture is subject to WAC 173-303-515 if it is destined to be burned for energy recovery. Any material produced from such a mixture by processing, blending, or other treatment is also so regulated if it is destined to be burned for energy recovery. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-070, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-070, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-070, filed 2/10/82.]

WAC 173-303-071 Excluded categories of waste. (1) Purpose. Certain categories of waste have been excluded from the requirements of chapter 173-303 WAC, except for WAC 173-303-050, because they generally are not dangerous waste, are regulated under other state and federal programs, or are recycled in ways which do not threaten public health or the environment. WAC 173-303-071 describes these excluded categories of waste.

(2) Excluding wastes. Any persons who generate a common class of wastes and who seek to categorically exclude such class of wastes from the requirements of this chapter shall comply with the applicable requirements of WAC 173-303-072. No waste class will be excluded if any of the wastes in the class are regulated as hazardous waste under 40 CFR Part 261.

(3) Exclusions. The following categories of waste are excluded from the requirements of chapter 173-303 WAC, except for WAC 173-303-050:

(a) Domestic sewage, and any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works (POTW) for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system;

(b) Industrial wastewater discharges that are point-source discharges subject to regulation under Section 402 of the Clean Water Act. This exclusion does not apply to the collection, storage, or treatment of industrial waste-waters prior to discharge, nor to sludges that are generated during industrial wastewater treatment;

(c) Household wastes, including household waste that has been collected, transported, stored, or disposed. Wastes which are residues from or are generated by the management of household wastes (e.g., leachate, ash from burning of refuse-derived fuel) are not excluded by this provision. "Household wastes" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas);

(d) Agricultural crops and animal manures which are returned to the soil as fertilizers;

(e) Asphaltic materials designated only for the presence of PAHs by WAC 173-303-084(6) or 173-303-102. For the purposes of this exclusion, asphaltic materials means materials intended and used for structural and construction purposes (e.g., roads, dikes, paving) which are produced from mixtures of oil and sand, gravel, ash or similar substances;

(f) Roofing tars and shingles, except that these wastes are not excluded if mixed with wastes listed in WAC 173-303-081 or 173-303-082, or if they exhibit any of the characteristics specified in WAC 173-303-090;

(g) Waste wood or wood products treated with preservatives if the waste is generated by persons who utilize the treated wood or wood products for these materials' intended end use;

(h) Irrigation return flows;

(i) Materials subjected to in-situ mining techniques which are not removed from the ground during extraction;

(j) Mining overburden returned to the mining site;

(k) Polychlorinated biphenyl (PCB) wastes.

(i) PCB wastes whose disposal is regulated by EPA under 40 CFR 761.60;

(ii) Wastes that would be designated as dangerous waste under this chapter solely because they are listed as W001 under WAC 173-303-9904 when, using EPA's PCB testing method 600/4-81-045, the waste can be shown to contain less than one part per million (ppm) PCB or when, using ASTM method D 4059-86, the waste can be shown to contain less than two parts per million (ppm) PCB;

(iii) Wastes that would be designated as dangerous waste under this chapter solely because they are listed as W001 under WAC 173-303-9904 when such wastes are:

(A) Stored in a manner equivalent to the requirements of 40 CFR 761.65; and

(B) Within one year of removal from service, disposed of either in an incinerator that complies with 40 CFR 761.70, in a chemical waste landfill that complies with 40 CFR 761.75, in a high efficiency boiler that complies with 40 CFR 761.60(a)(2)(iii) or (a)(3)(iii), or in a facility otherwise approved in accordance with 40 CFR 761.60(e);

(l) Samples.

(i) Except as provided in (l)(ii) of this subsection, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this chapter, when:

(A) The sample is being transported to a lab for testing or being transported to the sample collector after testing; or

(B) The sample is being stored by the sample collector before transport, by the laboratory before testing, or by the laboratory after testing prior to return to the sample collector; or

(C) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action).

(ii) In order to qualify for the exemption in (l)(i)(A) of this subsection, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

(A) Comply with United States Department of Transportation (DOT), United States Postal Service (USPS), or any other applicable shipping requirements; or

(B) Comply with the following requirements if the sample collector determines that DOT or USPS, or other shipping requirements do not apply:

(I) Assure that the following information accompanies the sample:

(aa) The sample collector's name, mailing address, and telephone number;

(bb) The laboratory's name, mailing address, and telephone number;

(cc) The quantity of the sample;

(dd) The date of shipment;

(ee) A description of the sample; and

(II) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(iii) This exemption does not apply if the laboratory determines that the waste is dangerous but the laboratory is no longer meeting any of the conditions stated in (l)(i) of this subsection;

(m) Asbestos wastes or asbestos containing wastes which would be designated only as respiratory carcinogens by WAC 173-303-084 or 173-303-103, and any other inorganic wastes which are designated only under WAC 173-303-084 or 173-303-103 because they are respiratory carcinogens, if these wastes are managed in compliance with or in a manner equivalent to the asbestos management procedures of 40 CFR Part 61;

(n) Dangerous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated nonwaste-treatment-manufacturing unit until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the dangerous waste remains in the unit more than ninety days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials;

(o) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC codes 331 and 332), except that these wastes are not excluded if they exhibit one or more of the dangerous waste criteria (WAC 173-303-100 through 173-303-103) or characteristics (WAC 173-303-090);

(p) Wastes from burning any of the materials exempted from regulation by WAC 173-303-120 (2)(a)(v), (vi), (vii), (viii), or (ix). [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-071, filed 6/3/86; 85-09-042 (Order DE-85-02), § 173-303-071, filed 4/15/85; 84-09-088 (Order DE 83-36), § 173-303-071, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-071, filed 2/10/82.]

WAC 173-303-072 Procedures and bases for exempting and excluding wastes. (1) Purpose and applicability.

(a) The purpose of this section is to describe the procedures that will be followed by generators and the department when wastes are considered for exemption or exclusion from the requirements of this chapter. Any person(s) whose waste is exempted or excluded will not be subject to the requirements of this chapter unless the department revokes the exemption or exclusion.

(b) Any person seeking a waste exemption must submit a petition to the department according to the procedures of WAC 173-303-910(3). A petition for exemption will be assessed against the applicable bases for exemption described in subsections (3), (4), and (5) of this section.

(c) Any persons seeking to categorically exclude a class of wastes must submit a petition to the department according to the procedures of WAC 173-303-910(4). A petition for exclusion will be assessed against the applicable bases for exclusion described in subsection (6) of this section.

(2) Department procedures. When considering, granting, or denying a petition for exemption or exclusion, the department shall follow the appropriate procedures described in WAC 173-303-910(1).

(3) Bases for exempting wastes. To successfully petition the department to exempt a waste, the petitioner must demonstrate to the satisfaction of the department that:

(a) He has been able to accurately describe the variability or uniformity of his waste over time, and has been able to obtain demonstration samples which are representative of his waste's variability or uniformity; and, either

(b) The representative demonstration samples of his waste are not designated DW or EHW by the dangerous waste criteria, WAC 173-303-100 through 173-303-103; or

(c) It can be shown, from information developed by the petitioner through consultation with the department, that his waste does not otherwise pose a threat to public health or the environment, except that this basis for exemption is not applicable to wastes which exhibit any of the characteristics specified in WAC 173-303-090.

(4) Additional bases for exempting listed wastes. In addition to the demonstrations required by subsections (3) (a) and (b) of this section, for wastes listed in WAC

173-303-081 or 173-303-082 the petitioner must also demonstrate to the satisfaction of the department that his waste is not capable of posing a substantial present or potential threat to public health or the environment when improperly treated, stored, transported, disposed of or otherwise managed. The following factors will be considered by the department when assessing such a demonstration:

(a) Whether or not the listed waste contains the constituent or constituents which caused it to be listed. (For the purposes of this subsection, the constituents referred to will include any of the dangerous waste constituents listed in WAC 173-303-9905);

(b) The nature of the threat posed by the waste constituent(s);

(c) The concentration of the constituent(s) in the waste;

(d) The potential of the constituent(s) or any degradation product of the constituent(s) to migrate from the waste into the environment under the types of improper management considered in (h) of this subsection;

(e) The persistence of the constituent(s) or any degradation product of the constituent(s);

(f) The potential for the constituent(s) or any degradation product of the constituent(s) to degrade into nonharmful constituents and the rate of degradation;

(g) The degree to which the constituent(s) or degradation product of the constituent(s) bioaccumulates in ecosystems;

(h) The plausible types of improper management to which the waste could be subjected;

(i) The quantities of the waste generated at individual generation sites or on a state-wide basis. Under this factor, the department will also consider whether or not the waste is listed under WAC 173-303-081 as a discarded chemical product and occurs in a relatively pure form. Any waste discarded chemical product which exceeds the quantity exclusion limit specified in WAC 173-303-081(2) for that waste will not be exempted;

(j) The nature and severity of the public health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent(s);

(k) Actions taken by other governmental agencies or regulatory programs based on the health or environmental threat posed by the waste or waste constituent(s); and

(l) Such other factors as may be appropriate.

(5) Bases for exempting wastes designated solely for the presence of chromium. The department will exempt a waste which is designated because of the presence of chromium if the petitioner can demonstrate that:

(a) The waste is not designated for any other characteristic under WAC 173-303-090, or for any of the criteria specified in WAC 173-303-101, 173-303-102 or 173-303-103;

(b) The waste is not listed in WAC 173-303-081 or 173-303-082 due to the presence of any constituent from WAC 173-303-9905 other than chromium;

(c) The waste is typically and frequently managed in nonoxidizing environments or under nonoxidizing conditions; and

(d) Either of the following demonstrations can be made:

(i) The waste is generated from a process which uses trivalent chromium exclusively (or nearly exclusively), the process does not generate hexavalent chromium, and the chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; or

(ii) Under test procedures approved by the department, the EP extract of the waste can be shown to contain less than five milligrams per liter (5 mg/L) of hexavalent chromium.

(6) Bases for categorically excluding classes of wastes. This subsection does not apply to any waste class that includes hazardous waste regulated under 40 CFR Part 261. To successfully petition the department to categorically exclude a class of wastes, petitioners must demonstrate to the satisfaction of the department that the petition or petitions for exclusion:

(a) Accurately describe the class of wastes for which categorical exclusion is sought and show that the class of wastes does not include any wastes which would be regulated as hazardous waste under 40 CFR Part 261;

(b) Describe the variability or uniformity of the class of wastes over time and in relation to the individual wastes that comprise the class of waste;

(c) Discuss the generators and their individual wastes that belong to the class of wastes and, to the extent practical, any generators or individual wastes that, although belonging to the class of wastes, are not represented by the petition or petitions; and

(d) For each individual waste within the class of wastes, provide the demonstration described by subsection (3) of this section, except that where it is determined by consultation with the department to be impractical to provide the demonstration for each individual waste, the petitioner or petitioners shall provide the demonstration for samples of the individual wastes determined by consultation with the department to be representative of the class of wastes. [Statutory Authority: Chapter 70.105 RCW. 84-14-031 (Order DE 84-22), § 173-303-072, filed 6/27/84.]

WAC 173-303-075 Certification of designation. (1) Purpose and applicability.

(a) The purpose of WAC 173-303-075 is to establish procedures by which the generator of a solid waste may apply to the department for a review of his waste, and for a determination of the designation of his waste. When a final determination is made, the department shall issue a certificate of designation which shall describe the status of the generator's waste with respect to the designation requirements of this chapter 173-303 WAC.

(b) The provisions of this section are applicable to any person who produces a solid waste, who may be subject to the requirements of this chapter 173-303 WAC as the generator of a dangerous waste and who wishes to obtain a certificate designating the status of his waste.

(2) Certification. Any person who produces a solid waste which could be a dangerous waste may apply to the department, in accordance with the guidelines published pursuant to WAC 173-303-075(4), for a certificate of designation for his waste.

(a) The certificate of designation will describe the status of the designation for a waste or wastes as follows:

(i) Either, the certificate will state that the waste or wastes listed in the certificate are designated dangerous waste; or

(ii) The certificate will state that the waste or wastes listed in the certificate are not designated dangerous waste under the designation lists or characteristics of WAC 173-303-080 through 173-303-090; or

(iii) The certificate will state that the waste or wastes listed in the certificate are not designated dangerous waste under the dangerous waste lists, characteristics or criteria, WAC 173-303-080 through 173-303-103.

(b) The certificate of designation will, at a minimum, include the following information:

(i) The name, address, telephone number and, where applicable, the EPA/state identification number of the person to whom the certificate is issued;

(ii) A statement of the status of the designation of the waste or wastes listed in the certificate and, if designated, whether DW or EHW;

(iii) A listing of the waste or wastes for which the certificate has been issued;

(iv) The signature of the director or his designee;

(v) The date on which the certificate was issued; and

(vi) The period of time or conditions for which the certificate is valid.

(c) Once a certificate of designation has been issued to a person, that person is no longer subject to the designation procedures of WAC 173-303-080 through 173-303-103, unless the period of time for which the certificate is valid expires, the conditions under which the certificate is valid change, or the department withdraws its certification of designation in accordance with WAC 173-303-075(5). If the certificate states that the waste or wastes listed in it are designated, then the person to whom the certificate is issued shall comply with all applicable requirements of this chapter 173-303 WAC. If the certificate states that the waste or wastes listed in it are not designated, then the person to whom the certificate is issued is not subject to the requirements of this chapter 173-303 WAC, unless the certificate becomes invalid or the department withdraws its certification.

(d) While an application for a certificate of designation is pending final action by the department, the person applying for certification must comply with all applicable requirements of this chapter 173-303 WAC.

(e) While a certificate of designation is being amended, in accordance with WAC 173-303-075(5), the certificate shall remain in effect except for those parts of the certificate which the department specifically suspends.

(3) Designation. Determination of the status of designation for a waste or wastes for which a certificate of designation is being sought shall follow the procedures set forth in this subsection.

(a) A waste shall be certified as a dangerous waste if it is designated under any of the methods set forth in WAC 173-303-080 through 173-303-103.

(b) A waste shall be certified as not a dangerous waste if:

(i) It has only been checked against WAC 173-303-080 through 173-303-090 (lists and characteristics) and it is not designated; or

(ii) It has been checked against the dangerous waste lists, characteristics and criteria, WAC 173-303-080 through 173-303-103, and it is not designated.

(4) Application. Any person who wishes to apply for a certificate of designation shall do so according to the certification guidelines published by and available from the department. The department shall follow the procedures specified in the certification guidelines when considering an application for a certificate.

(5) Review of certification. Review of and changes to or withdrawal of certificates of designation shall be performed by the department according to the procedures specified in the certification guidelines, available from the department. At a minimum, the certification guidelines provide for the following procedures:

(a) The department will periodically review each certificate of designation to insure that it is current and accurately states the proper designation for the waste or wastes listed on the certificate.

(b) The department may amend, or any person with a certificate of designation may request the department to amend, any certificate in the event that changes to the certificate are necessary to keep it current or maintain its accuracy. The person will obtain concurrence of the department if he wishes to amend his certificate to reflect changes in the information on the certificate (e.g., new wastes, changes in waste properties, changes of address, etc.).

(c) The department reserves the authority to withdraw any certificate of designation if there is reason to believe that the certificate results in a threat to public health or the environment. If a certificate is withdrawn, then the waste or wastes listed on the certificate shall be subject to all applicable requirements of this chapter 173-303 WAC. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-075, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-075, filed 2/10/82.]

WAC 173-303-080 Dangerous waste lists. The dangerous waste lists include:

(1) WAC 173-303-081, Discarded chemical products;

(2) WAC 173-303-082, Dangerous waste sources;

(3) WAC 173-303-083, Infectious dangerous wastes; and

(4) WAC 173-303-084, Dangerous waste mixtures. [Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-080, filed 2/10/82.]

WAC 173-303-081 Discarded chemical products. (1) A waste shall be designated as a dangerous waste if it is handled in any of the manners described in (e) of this subsection, and if it is a residue from the management of:

(a) A commercial chemical product or manufacturing chemical intermediate which has the generic name listed in the discarded chemical products list, WAC 173-303-9903;

(b) An off-specification commercial chemical product or manufacturing chemical intermediate which if it had met specifications would have the generic name listed in the discarded chemical products list, WAC 173-303-9903;

(c) Any containers or inner liners that have been used to hold any commercial chemical product or manufacturing chemical intermediate that has, or any off-specification commercial chemical product or manufacturing chemical intermediate which if it had met specifications would have, the generic name listed on the acutely dangerous chemical products list of WAC 173-303-9903, unless the containers or inner liners are empty and have been triple rinsed as described in WAC 173-303-160 (2) and (3);

(d) Any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill of a commercial chemical product or manufacturing chemical intermediate which has, or of an off-specification commercial chemical product or manufacturing chemical intermediate which if it had met specifications would have, the generic name listed in the discarded chemical products list, WAC 173-303-9903;

(e) The materials or items described in (a), (b), (c), and (d) of this subsection are dangerous wastes when they are:

(i) Discarded or intended to be discarded as described in WAC 173-303-016 (3)(b)(i);

(ii) Burned for purposes of energy recovery in lieu of their original intended use;

(iii) Used to produce fuels in lieu of their original intended use;

(iv) Applied to the land in lieu of their original intended use; or

(v) Contained in products that are applied to the land in lieu of their original intended use.

(2) Quantity exclusion limits:

(a) A person with a waste or wastes (including residues from the management of wastes) identified in subsection (1) of this section, shall be a dangerous waste generator (and may not be considered a small quantity generator as provided in WAC 173-303-070(8)) if the amount of his waste exceeds the following quantity exclusion limits:

(i) For chemicals designated on the acutely dangerous chemical products list of WAC 173-303-9903 - 2.2 lbs. (1.0 kg) per month or per batch. Such wastes are designated EHW;

(ii) For chemicals and for residues from the cleanup of spills involving chemicals designated on the moderately dangerous chemical products list of WAC 173-303-9903 - 400 lbs. (181.8 kg) per month or per batch. Such wastes are designated DW;

(iii) For containers or inner liners which held any chemical designated on the acutely dangerous chemical products list of WAC 173-303-9903 - 2.2 lbs. (1.0 kg) of residue remaining in the containers or inner liners per month or per batch unless the containers or inner liners meet the definition of empty and have been triple rinsed as described in WAC 173-303-160 (2) and (3);

(iv) For residues, contaminated soil, water, or other debris from the cleanup of a spill of any chemical designated on the acutely dangerous chemical products list of WAC 173-303-9903 - 220 lbs. (100 kg) per month or per batch. Such wastes are designated EHW.

(b) A person's total monthly waste quantity shall be the sum of all his wastes which share a common quantity exclusion limit (e.g., the total quantity of all EHW discarded chemical products, the total quantity of all residues contaminated by EHW discarded chemical products, etc.) which were generated during a month or a batch operation at each specific waste generation site.

(3) Dangerous waste numbers and mixtures. A waste which has been designated as a discarded chemical product dangerous waste shall be assigned the dangerous waste number or numbers listed in WAC 173-303-9903 next to the generic chemical or chemicals which caused the waste to be designated. If a person mixes a solid waste with a waste that would be designated as a discarded chemical product under this section, then the entire mixture shall be designated. The mixture designation shall be the same as the designation for the discarded chemical product which was mixed with the solid waste. For example, a mixture containing 2.2 lbs. (1 kg) of Aldrin (dangerous waste number P004; EHW designation) and 22 lbs. (10 kg) of a solid waste, would be designated as an EHW, and would have the dangerous waste number P004.

(4) For the purposes of this chapter, the term "acutely hazardous waste" shall include discarded chemical products (listed in WAC 173-303-9903) that are identified with a dangerous waste number beginning with a "P" or that show an "X" or "A" in the reason for designation column. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-081, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-081, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-081, filed 2/10/82.]

WAC 173-303-082 Dangerous waste sources. (1) The dangerous waste sources list appears in WAC 173-303-9904. Any waste which is listed or which is a residue from the management of a waste listed on the dangerous waste sources list shall be designated a dangerous waste, and shall be identified as DW, except that WAC 173-303-9904 includes several footnotes describing circumstances under which certain dangerous waste sources should be designated EHW rather than DW.

(2) Quantity exclusion limit. A person whose waste is listed in WAC 173-303-9904 (including residues from the management of such wastes) shall be a dangerous

waste generator (and may not be considered a small quantity generator as provided in WAC 173-303-070(8)) if the amount of his waste exceeds the following quantity exclusion limits:

(a) 2.2 lbs. (1 kg) per month or per batch for wastes listed with the dangerous waste numbers F020, F021, F022, F023, F026, or F027. For the purposes of this chapter, the term "acutely hazardous waste" shall include dangerous waste sources F020, F021, F022, F023, F026, and F027;

(b) 220 lbs. (100 kg) per month or per batch of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water of a waste listed in (a) of this subsection; or

(c) 400 lbs. (181.8 kg) per month or per batch for all other wastes.

(3) Care should be taken in the proper designation of these wastes and of mixtures of these wastes and solid wastes. If a person mixes a solid waste with a waste that would be designated as a dangerous waste source under this section, then the entire mixture shall be designated as a dangerous waste source. The mixture shall have the same designation (DW or EHW), and shall have the same dangerous waste number as the dangerous waste source which was mixed with the solid waste.

(4) For the purposes of this section, any dangerous waste source listed in WAC 173-303-9904 which lists more than one chemical compound must be designated as a dangerous waste if it contains any one or any combination of the listed chemical compounds. For example, a spent nonhalogenated solvent containing both xylene and acetone must be designated as dangerous waste source F003. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-082, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-082, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-082, filed 2/10/82.]

WAC 173-303-083 Infectious dangerous wastes. (Reserved.) [Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-083, filed 2/10/82.]

WAC 173-303-084 Dangerous waste mixtures. (1) Purpose. It is the purpose of this section to describe the means for designating a waste mixture containing dangerous wastes which are not listed in WAC 173-303-081 through 173-303-083.

(2) References. The National Institute for Occupational Safety and Health's (NIOSH) *Registry of Toxic Effects of Chemical Substances* (Registry) is adopted by reference. The table in the United States EPA's regulations 40 CFR Table 302.4 (Spill Table) is adopted by reference.

(3) Waste mixture defined. For the purposes of this section, a waste mixture shall be any waste about which some or all of its constituents and concentrations are known, and which has not been designated as:

(a) A discarded chemical product under WAC 173-303-081;

(b) A dangerous waste source under WAC 173-303-082;

(c) An infectious dangerous waste under WAC 173-303-083; or

(d) A dangerous waste that has been designated by the criteria of WAC 173-303-101 through 173-303-103.

(4) A person who has a waste mixture shall use data which is available to him, and, when such data is inadequate for the purposes of this section, shall refer to the NIOSH Registry and/or to the EPA Spill Table to determine:

(a) Toxicity data or category for each known constituent in his waste;

(b) Whether or not each known constituent of his waste is a halogenated hydrocarbon or a polycyclic aromatic hydrocarbon with greater than three rings and less than seven rings; and,

(c) Whether or not each known constituent of his waste is an International Agency for Research on Cancer (IARC) human or animal, positive or suspected carcinogen.

(5) Toxicity.

(a) If a person has toxic constituents in his waste, he shall determine the toxic category for each known toxic constituent. The toxic category for each constituent may be determined directly from EPA'S Spill Table, or by obtaining data from the NIOSH Registry and checking this data against the toxic category table, below. If data is available for more than one of the four toxicity criteria (aquatic, oral, inhalation, or dermal), then the data of severest toxicity shall be used, and the most acutely toxic category shall be assigned to the constituent. If toxicity data for a constituent cannot be found in EPA'S Spill Table, NIOSH Registry, or other source reasonably available to a person, then he need not determine the toxic category for that constituent.

TOXIC CATEGORY TABLE

Category	TLm_{96} (Fish) or, Aquatic (Fish) LC_{50}(ppm)	Oral (Rat) LD_{50}(mg/kg)	Inhalation (Rat) LC_{50}(mg/L)	Dermal (Rabbit) LD_{50}(mg/kg)
X	<.1	<.5	<.02	< 2
A	.1 - 1	.5 - 5	.02 -.2	2 - 20
B	1 - 10	5 - 50	.2 - 2	20 - 200
C	10 - 100	50 - 500	2 - 20	200 - 2000
D	100 - 1000	500 - 5000	20 - 200	2000 - 20,000

(b) A person whose waste mixture contains one or more toxic constituents shall determine the equivalent concentration for his waste from the following formula:

$$\text{Equivalent Concentration}(\%) = \frac{\Sigma X\%}{10} + \frac{\Sigma A\%}{100} + \frac{\Sigma B\%}{1000} + \frac{\Sigma C\%}{10{,}000} + \Sigma D\%$$

where Σ(X,A,B,C, or D) % is the sum of all the concentration percentages for a particular toxic category.

Example 1. A person's waste mixture contains: Aldrin (X Category) - .01%; Diuron (B Category) - 1%; Benzene (C Category) - 4%; Phenol (C Category) - 2%;

Cyclohexane (C Category) = 5%; Water (nontoxic) = 87%. His equivalent concentration (E.C.) would be:

$$\text{E.C. (\%)} = \frac{.01\%}{10} + \frac{0\%}{100} + \frac{1\%}{1000} + \frac{(4\% + 2\% + 5\%)}{10{,}000} + \frac{0\%}{}$$

$$= .01\% + 0\% + .01\% + .011\% + 0\% = .031\%$$

So his equivalent concentration equals .031%.

(c) A person whose waste mixture contains toxic constituents shall determine his designation from the toxic dangerous waste mixtures graph in WAC 173-303-9906 by finding the equivalent concentration percentage for his waste along the abscissa, finding his total waste mixture quantity along the ordinate, and plotting the point on the graph where the horizontal line drawn from his total waste mixture quantity intersects the vertical line drawn from his waste mixture's equivalent concentration. If the plotted point is in the area marked DW, he shall designate his waste as DW; if the plotted point is in the area marked EHW, he shall designate his waste as EHW.

(d) If a person knows only some of the toxic constituents in his waste mixture, or only some of the constituent concentrations, and if his waste is undesignated for those known constituents or concentrations, then his waste is not designated for toxicity under this subsection.

(e) Toxic dangerous waste mixtures graph. The toxic dangerous waste mixtures graph appears in WAC 173-303-9906.

(6) Persistence.

(a) A person whose waste mixture contains one or more halogenated hydrocarbons for which the concentrations are known shall determine his total halogenated hydrocarbon concentration by summing the concentration percentages for all of those halogenated hydrocarbons for which he knows the concentrations in his waste mixture.

Example 2. A person's waste mixture contains: Carbon tetrachloride - .009%; DDT - .012%; 1,1,1 - trichloroethylene - .02%. His total halogenated hydrocarbon concentration would be:

Total HH Concentration (%) = .009% + .012% + .02% = .041%

(b) A person whose waste mixture contains one or more polycyclic aromatic hydrocarbons with more than three rings and less than seven rings for which the concentrations are known shall determine his total polycyclic aromatic hydrocarbon concentration by summing the concentration percentages for all of those polycyclic aromatic hydrocarbons with more than three rings and less than seven rings about which he knows the concentration in his waste mixture.

Example 3. A person's waste mixture contains: Chrysene - .08%; 3, 4 - benzopyrene - 1.22%. His total polycyclic aromatic hydrocarbon concentration would be:

Total PAH Concentration (%) = .08% + 1.22% = 1.3%

(c) A person whose waste mixture contains halogenated hydrocarbons shall determine his designation from the persistent dangerous waste mixtures graph in WAC 173-303-9907 by finding the total halogenated hydrocarbon concentration for his waste along the abscissa, finding his total waste mixture quantity along the ordinate, and plotting the point on the graph where the horizontal line drawn from his total waste mixture quantity intersects the vertical line drawn from his waste mixture's total halogenated hydrocarbon concentration. If the plotted point is in the area marked DW, then he shall designate his waste DW; if the plotted point is in the area marked EHW, then he shall designate his waste EHW.

(d) A person whose waste mixture contains polycyclic aromatic hydrocarbons with more than three rings and less than seven rings shall determine his designation from the persistent dangerous waste mixtures graph in WAC 173-303-9907 by finding the total polycyclic aromatic hydrocarbon concentration of his waste along the abscissa, finding his total waste mixture quantity along the ordinate, and plotting the point on the graph where the horizontal line drawn from his total waste mixture quantity intersects the vertical line drawn from his waste mixture's total polycyclic aromatic hydrocarbon concentration. If the plotted point is in the area marked EHW, then he shall designate his waste EHW. If the plotted point is outside of the area marked EHW, then his waste is not designated.

(e) If a person knows only some of the persistent constituents in his waste mixture, or only some of the constituent concentrations, and if his waste is undesignated for those known constituents or concentrations, then his waste is not designated for persistence under this subsection.

(f) Persistent dangerous waste mixtures graph. The persistent dangerous waste mixtures graph appears in WAC 173-303-9907.

(7) Carcinogens. Any person whose waste mixture contains one or more IARC human or animal, positive or suspected carcinogen(s) shall designate his waste DW if:

(a) The total concentration of carcinogen(s) in his waste exceeds 1.0% of the waste quantity; and

(b) The monthly or batch waste quantity exceeds 400 lbs. (181.8 kg.).

(c) For designation purposes, any IARC human or animal, positive or suspected carcinogen that is so rated because of studies involving implantation of the substance into test animals as sole cause for the IARC rating, shall not be carcinogenic. This additional information is available in the IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans.

(8) Assigning dangerous waste numbers. A person whose waste is a dangerous waste mixture shall assign a dangerous waste number from the generic dangerous waste numbers table in WAC 173-303-104, Generic dangerous waste numbers. He shall assign the dangerous waste number from the table which corresponds to the designation for his dangerous waste. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-084, filed 6/3/86; 84-09-088 (Order

DE 83-36), § 173-303-084, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-084, filed 2/10/82.]

WAC 173-303-090 Dangerous waste characteristics. (1) Purpose. The purpose of this section is to set forth characteristics which a solid waste might exhibit and which would cause that waste to be a dangerous waste.

(2) Representative samples. The department will consider a sample obtained using any of the applicable sampling methods described in WAC 173-303-110(2), sampling and testing methods, to be a representative sample.

(3) Equivalent test methods. The testing methods specified in this section shall be the only acceptable methods, unless the department approves an equivalent test method in accordance with WAC 173-303-910(2).

(4) Quantity exclusion limit. A solid waste is a dangerous waste if it exhibits one or more of the dangerous waste characteristics described in subsections (5), (6), (7), and (8) of this section. If a person's solid waste exhibits one or more of these characteristics, then he shall be a dangerous waste generator (and may not be considered a small quantity generator as provided in WAC 173-303-070(8)) if the quantity of his waste exceeds 400 lbs. (181.8 kg.) per month or per batch.

(5) Characteristic of ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(i) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60 degrees C (140 degrees F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78;

(ii) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard;

(iii) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation; or,

(iv) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability, but is not designated as a dangerous waste under any of the dangerous waste lists, WAC 173-303-080 through 173-303-084, or dangerous waste criteria, WAC 173-303-101 through 173-303-103, shall be designated DW, and shall be assigned the dangerous waste number of D001.

(6) Characteristic of corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has any one or more of the following properties:

(i) It is aqueous, and has a pH less than or equal to 2, or greater than or equal to 12.5, as determined by a pH meter using Method 5.2 in *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*, available from the department;

(ii) It is liquid, and corrodes steel (SAE 1020) at a rate greater than 0.250 inch (6.35 mm) per year at a test temperature of 55 degrees C (130 degrees F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*. The NACE Standard is available from the department; or

(iii) It is solid or semi-solid, and when mixed with an equal weight of water results in a solution, the liquid portion of which has the property specified in (a)(i) of this subsection. Procedures for preparing and extracting the solution and liquid are described in the test procedures of WAC 173-303-110 (3)(a).

(b) A solid waste that exhibits the characteristic of corrosivity, but is not designated as a dangerous waste under any of the dangerous waste lists, WAC 173-303-080 through 173-303-084, or dangerous waste criteria, WAC 173-303-101 through 173-303-103, shall be designated DW, and shall be assigned the dangerous waste number of D002.

(7) Characteristic of reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

(i) It is normally unstable and readily undergoes violent change without detonating;

(ii) It reacts violently with water;

(iii) It forms potentially explosive mixtures with water;

(iv) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;

(v) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5 can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;

(vi) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;

(vii) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or

(viii) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53, or a Class B explosive as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity, but is not designated as a dangerous waste under any of the dangerous waste lists, WAC 173-303-080 through 173-303-084, or dangerous waste criteria, WAC 173-303-101 through 173-303-103, shall be designated DW, and shall be assigned the dangerous waste number of D003.

(8) Characteristic of EP toxicity.

(a) A solid waste exhibits the characteristic of EP toxicity if, using *Extraction Procedure Test Methods – 1981* on file with the department, the extract from a representative sample of the waste contains any of the contaminants listed in the EP toxicity list in (c) of this subsection, at concentrations equal to or greater than the respective value given in the list. When the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract for the purposes of this subsection.

(b) A solid waste that exhibits the characteristic of EP toxicity, but is not designated as a dangerous waste under any of the dangerous waste lists, WAC 173-303-080 through 173-303-084, or dangerous waste criteria, WAC 173-303-101 through 173-303-103, has the dangerous waste number specified in the list which corresponds to the toxic contaminant causing it to be dangerous.

(c) EP toxicity list. Two levels of concentration are established for the contaminants listed. Any waste containing one or more contaminants with concentrations in the EHW range shall cause that waste to be designated EHW. Any waste containing contaminants which occur at concentrations in the DW range only (i.e., no EHW contaminants), shall be designated DW.

EP TOXICITY LIST

Dangerous Waste Number	Contaminant	EHW Maximum Concentration In Extract (mg/L)	DW Maximum Concentration In Extract (mg/L)
D004	Arsenic	> 500	5 - 500
D005	Barium	> 10,000	100 - 10,000
D006	Cadmium	> 100	1 - 100
D007	Chromium	> 500	5 - 500
D008	Lead	> 500	5 - 500
D009	Mercury	> 20	0.2 - 20
D010	Selenium	> 100	1 - 100
D011	Silver	> 500	5 - 500
D012	Endrin	> 2	0.02 - 2
D013	Lindane	> 40	0.4 - 40
D014	Methoxychlor	> 1,000	10 - 1,000
D015	Toxaphene	> 50	0.5 - 50
D016	2,4-D	> 1,000	10 - 1,000
D017	2,4,5-TP Silvex	> 100	1 - 100

[Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-090, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-090, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-090, filed 2/10/82.]

WAC 173-303-100 Dangerous waste criteria. (1) The dangerous waste criteria consist of:

(a) Toxic dangerous wastes, WAC 173-303-101;

(b) Persistent dangerous wastes, WAC 173-303-102;

(c) Carcinogenic dangerous wastes, WAC 173-303-103; and

(d) Dangerous waste characteristics, WAC 173-303-090.

(2) Applicability. Any person who has established that his waste meets any of the dangerous waste criteria is a dangerous waste generator, and shall comply with the applicable requirements set forth in this chapter. A person shall use the dangerous waste criteria to designate his waste pursuant to WAC 173-303-070 (3)(b), or (4), or to exempt his waste pursuant to WAC 173-303-072, or to otherwise establish the risk which his waste presents to public health and the environment. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-100, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-100, filed 2/10/82.]

WAC 173-303-101 Toxic dangerous wastes. (1) Purpose. This section describes methods for determining the toxicity of a waste and the criteria by which a toxic waste shall be designated DW or EHW.

(2) Categorization. (a) The following toxic category table establishes categories (X, A, B, C, or D) for particular toxicity levels. The X category is the most toxic, and the D category is least toxic. Substances which have toxicity levels below the D category are generally considered to be nontoxic.

TOXIC CATEGORY TABLE

Category	TLm_{96} (Fish) or Aquatic (Fish) LC_{50}(ppm)	Oral (Rat) LD_{50}(mg/kg)	Inhalation (Rat) LC_{50}(mg/L)	Dermal (Rabbit) LD_{50} (mg/kg)
X	<.1	<.5	<.02	<2
A	.1 - 1	.5 - 5.0	2 - .2	2 - 20
B	1 - 10	5 - 50	.2 - 2	20 - 200
C	10 - 100	50 - 500	2 - 20	200 - 2000
D	100 - 1000	500 - 5000	20 - 200	2000 - 20,000

(b) In order to determine the toxic categories for the constituents in his waste, a person must obtain toxicity data on the constituents either through knowledge he has about his waste, or by obtaining data from the two sources referenced in subsection (3)(a) and (b) of this section, (EPA's Spill Table and NIOSH Registry). If data obtained for a constituent is available for more than one of the toxicity criteria (aquatic, oral, inhalation, or dermal), then the data of severest toxicity shall be used to assign the most acutely toxic category to the waste constituent.

(3) Establishing waste toxicity. A person shall establish the toxicity of his waste or waste constituents by applying his knowledge about his waste, or by using the following information sources or testing methods, or all of these:

(a) The National Institute for Occupational Safety and Health (NIOSH) document *Registry of Toxic Effects of Chemical Substances* (Registry);

(b) The United States EPA's regulation 40 CFR Table 302.4 (Spill Table); and

(c) The bioassay testing methods adopted under WAC 173-303-110(3).

(4) Book designation procedure.

(a) A person may use the book designation procedure described in this paragraph only if:

(i) He knows the toxic categories (as set forth in subsection (2) of this section) for the significant toxic constituents in his waste;

(ii) He knows the concentrations of the significant toxic constituents in his waste; and

(iii) He can demonstrate to the department beyond a reasonable doubt that any waste constitutents about which he has limited or no knowledge do not significantly affect the toxicity of his waste.

(b) Equivalent concentration. A person who is book designating his waste shall determine the equivalent concentration (in percent) of the toxic constituents in his waste by using the following formula:

$$\text{Equivalent Concentration (\%)} = \frac{\Sigma X\%}{10} + \frac{\Sigma A\%}{100} + \frac{\Sigma B\%}{1000} + \frac{\Sigma C\%}{10{,}000} + \frac{\Sigma D\%}{}$$

where Σ(X,A,B,C, or D)% is the sum of all the concentration percentages for a particular toxic category.

Example 1. A person's waste contains: Aldrin (X Category) – .01%; Diuron (B Category) – 1%; Benzene (C Category) – 4%; Phenol (C Category) – 2%; Cyclohexane (C Category) – 5%; Water (nontoxic) – 87%. His equivalent concentration (E.C.) would be:

$$\text{E.C. (\%)} = \frac{.01\%}{10} + \frac{0\%}{100} + \frac{1\%}{1000} + \frac{(4\% + 2\% + 5\%)}{10{,}000} + \frac{0\%}{}$$

$$= .01\% + 0\% + .01\% + .011\% + 0\% = .031\%$$

So his equivalent concentration equals .031%.

(c) Toxic dangerous waste graph. To book designate his waste, a person shall use the toxic dangerous waste mixtures graph in WAC 173-303-9906, by finding the equivalent concentration percentage for his waste along the abscissa, finding his total waste quantity along the ordinate, and plotting the point on the graph where the horizontal line drawn from his total waste quantity intersects the vertical line drawn from his waste mixture's equivalent concentration. If the plotted point is in the area marked DW, he shall designate his waste DW; if the plotted point is in the area marked EHW, he shall designate his waste EHW.

(5) Designation from bioassay data. If a person has established the toxicity of his waste by means of the bioassay test methods adopted under WAC 173-303-110(3), and has determined his waste's toxicity range (C category or greater toxicity, or D category toxicity), then he shall designate his waste according to the toxic dangerous waste designation table, below.

TOXIC DANGEROUS WASTE DESIGNATION TABLE

If your waste's toxic range falls in the . . .	And your monthly or batch waste quantity is . . .	Then your waste's designation is . . .
D Category	Greater than 400 lbs. (181.8 kg)	DW
X, A, B, or C Category	40 – 400 lbs. (18.2 – 181.8 kg)	DW

TOXIC DANGEROUS WASTE DESIGNATION TABLE

If your waste's toxic range falls in the . . .	And your monthly or batch waste quantity is . . .	Then your waste's designation is . . .
	Greater than 400 lbs. (181.8 kg)	EHW

[Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-101, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-101, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-101, filed 2/10/82. Formerly chapter 173-302 WAC.]

WAC 173-303-102 Persistent dangerous wastes. (1) Purpose. This section describes the procedures for designating wastes which contain halogenated hydrocarbons (HH) and/or polycyclic aromatic hydrocarbons with more than three rings and less than seven rings (PAH).

(2) Concentration determination. A person shall determine the concentration of HH and/or PAH in his waste by either testing his waste as specified in (a) of this subsection, or by the calculation procedures described in (b) of this subsection.

(a) Concentration tests. A person shall test his waste to determine its concentration level as follows:

(i) For HH – By using the testing methods specified in WAC 173-303-110 (3)(a)(v); and,

(ii) For PAH – By using the testing methods specified in WAC 173-303-110 (3)(a)(vi).

(b) Concentration calculations. If a person knows the concentrations of the significant persistent constituents in his waste, and if he can demonstrate to the department beyond a reasonable doubt that any remaining persistent constituents for which he does not know the concentrations would not contribute significantly to the total persistent concentration, then he may calculate the concentration of persistent constituents in his waste as follows:

(i) A person whose waste contains one or more halogenated hydrocarbons for which the concentrations are known shall determine his total halogenated hydrocarbon concentration by summing the concentration percentages for all of his waste's significant halogenated hydrocarbons.

Example 1. A person's waste contains: Carbon tetrachloride – .009%; DDT – .012%; 1,1,1 – trichloroethylene – .02%. His total halogenated hydrocarbon concentration would be:

Total HH Concentration (%) = .009% + .012% + .02% = .041%

(ii) A person whose waste contains one or more polycyclic aromatic hydrocarbons with more than three rings and less than seven rings for which the concentrations are known shall determine his total polycyclic aromatic hydrocarbon concentration by summing the

concentration percentages for all of his waste's significant polycyclic aromatic hydrocarbons with more than three rings and less than seven rings.

Example 2. A person's waste contains: Chrysene - .08%; 3, 4 - benzopyrene - 1.22%. His total polycyclic aromatic hydrocarbon concentration would be:

Total PAH Concentration (%) = .08% + 1.22% ≡ 1.3%

(3) Designation criteria and quantity. A person whose waste contains persistent (HH or PAH) constituents shall designate his waste according to the persistent dangerous waste table, below, if his monthly or batch waste quantity exceeds 400 lbs. (181.8 kg.).

PERSISTENT DANGEROUS WASTE TABLE

If your waste contains . . .	At a concentration level of . . .	Then your waste's designation is . . .
Halogenated Hydrocarbons (HH)	0.01 to 1.0%	DW
	greater than 1.0%	EHW
Polycyclic Aromatic Hydrocarbons (PAH)	greater than 1.0%	EHW*

* No DW concentration level for PAH.

[Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-102, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-102, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-102, filed 2/10/82. Formerly WAC 173-302-130.]

WAC 173-303-103 Carcinogenic dangerous wastes. (1) Criteria. A substance which is listed in the National Institute for Occupational Safety and Health (NIOSH) document *Registry of Toxic Effects of Chemical Substances* (Registry), or any other scientific or technical documents, as an IARC (International Agency for Research on Cancer) human or animal, positive or suspected carcinogen, shall be a carcinogenic substance for the purposes of this section. Any IARC identified substance which is an inorganic, respiratory carcinogen shall be a carcinogenic substance only if it occurs in a friable format (i.e., if it is in a waste which easily crumbles and forms dust which can be inhaled).

(2) Designation. Any person whose waste contains one or more IARC carcinogen(s) shall designate his waste if:

(a) The monthly or batch waste quantity exceeds 400 lbs. (181.8 kg); and either

(b)(i) The concentration of any one IARC positive (human or animal) carcinogen exceeds 1.0% of the waste quantity. Such waste shall be designated EHW, and such designation shall take precedence over any DW designation determined by (b)(ii) or (iii) of this subsection; or

(ii) The concentration of any one IARC positive (human or animal) carcinogen exceeds 0.01% of the waste quantity. Such waste shall be designated DW; or

(iii) The total concentration summed for all IARC positive and suspected (human and animal) carcinogens exceeds 1.0% of the waste quantity. Such waste shall be designated DW.

(c) For designation purposes, any IARC human or animal, positive or suspected carcinogen that is so rated because of studies involving implantation of the substance into test animals as sole cause for the IARC rating, shall not be carcinogenic. This additional information is available in the IARC *Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans.* [Statutory Authority: Chapter 70.105 RCW. 84-14-031 (Order DE 84-22), § 173-303-103, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-103, filed 2/10/82.]

WAC 173-303-104 Generic dangerous waste numbers. (1) Purpose. This section sets forth the dangerous waste number for each of the dangerous waste criteria designations.

(2) Characteristics. A waste which exhibits any of the dangerous waste characteristics, WAC 173-303-090, shall be assigned the dangerous waste number corresponding to the characteristic(s) exhibited by the waste.

(3) Criteria. The following table shall be used for assigning dangerous waste numbers to wastes designated by the dangerous waste criteria or by WAC 173-303-084.

GENERIC DANGEROUS WASTE NUMBERS TABLE

Dangerous Waste#	Dangerous Waste Criteria and Designation
	Toxic Dangerous Wastes
WT01	EHW
WT02	DW
	Persistent Dangerous Wastes
	Halogenated Hydrocarbons
WP01	EHW
WP02	DW
	Polycyclic Aromatic Hydrocarbons
WP03	EHW
	Carcinogenic Dangerous Wastes
WC01	EHW
WC02	DW

[Statutory Authority: Chapter 70.105 RCW. 84-14-031 (Order DE 84-22), § 173-303-104, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-104, filed 2/10/82.]

WAC 173-303-110 Sampling and testing methods. (1) Purpose. This section describes the testing methods which may be used in the process of designating a dangerous waste.

(2) Representative samples.

(a) The methods and equipment used for obtaining representative samples of a waste will vary with the type and form of the waste. The department will consider

samples collected using the sampling methods below, for wastes with properties similar to the indicated materials, to be representative samples of the wastes:

(i) Crushed or powdered material – ASTM Standard D346–75;

(ii) Extremely viscous liquid – ASTM Standard D140–70;

(iii) Fly ash–like material – ASTM Standard D2234–76;

(iv) Soil–like material – ASTM Standard D1452–65;

(v) Soil or rock–like material – ASTM Standard D420–69;

(vi) Containerized liquid wastes – "COLIWASA" described in *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*, SW–846, revised July 1982, as amended by Update 1 (April 1984) and Update 2 (April 1985); and,

(vii) Liquid waste in pits, ponds, lagoons, and similar reservoirs – "Pond Sampler" described in *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*, SW–846, revised July 1982, as amended by Update 1 (April 1984) and Update 2 (April 1985).

(b) Copies of these representative sampling methods are available from the department except for the ASTM standards which can be obtained by writing to:

ASTM
1916 Race Street
Philadelphia, PA 19103.

(3) Test procedures. Copies of the test procedures listed in this subsection can be obtained from the department by writing to the appropriate address below:

For copies of WDOE test methods:

Attn: Test Procedures
Hazardous Waste Section, PV–11
Department of Ecology
Olympia, Washington 98504

For copies of SW 846:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20401

For copies of ASTM methods:

ASTM
1916 Race Street
Philadelphia, PA 19103

The document titles and included test procedures are as follows:

(a) *Chemical Testing Methods for Complying with the Dangerous Waste Regulation*, March 1982, revised July 1983, describing methods for testing:

(i) Ignitability;

(ii) Corrosivity, including the addendum, *Test Method for Determining pH of Solutions in Contact with Solids*, March 1984;

(iii) Reactivity;

(iv) EP Toxicity;

(v) Halogenated hydrocarbons; and

(vi) Polycyclic aromatic hydrocarbons;

(b) *Biological Testing Methods*, revised July 1981, describing procedures for:

(i) Static acute fish toxicity test; and

(ii) Acute oral rat toxicity test;

(c) *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW–846* (second edition, 1982 as amended by Update 1 (April 1984) and Update 2 (April 1985)) is adopted by reference. This includes:

(i) Method 9095 (Paint Filter Liquids Test), demonstrating the absence or presence of free liquids in either a containerized or bulk waste;

(ii) Reserved;

(d) 40 CFR Part 261 Appendix X is adopted by reference for the purpose of analysis for chlorinated dibenzo–p–dioxins and dibenzofurans;

(e)(i) The determination of Polychlorinated Biphenyls in Transformer Fluids and Waste Oils, EPA–600/4–81–045; and

(ii) Analysis of Polychlorinated Biphenyls in Mineral Insulating Oils by Gas Chromatography, ASTM Standard D 4059–86.

(4) Substantial changes to the testing methods described above shall be made only after the department has provided adequate opportunity for public review and comment on the proposed changes. The department may, at its discretion, schedule a public hearing on the proposed changes.

(5) Equivalent testing methods. Any person may request the department to approve an equivalent testing method by submitting a petition, prepared in accordance with WAC 173–303–910(2), to the department. [Statutory Authority: Chapter 70.105 RCW. 86–12–057 (Order DE–85–10), § 173–303–110, filed 6/3/86; 84–14–031 (Order DE 84–22), § 173–303–110, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82–05–023 (Order DE 81–33), § 173–303–110, filed 2/10/82.]

WAC 173–303–120 Recycled, reclaimed, and recovered wastes. (1) This section describes the requirements for persons who recycle materials that are solid wastes and dangerous. Except as provided in subsections (2) and (3) of this section, dangerous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of subsection (4) of this section. Dangerous wastes that are recycled will be known as "recyclable materials."

(2)(a) The following recyclable materials are solid wastes and sometimes are dangerous wastes. However, they are subject only to the requirements of (b) of this subsection, WAC 173–303–050, 173–303–145 and 173–303–960:

(i) Industrial ethyl alcohol that is reclaimed;

(ii) Used batteries (or used battery cells) returned to a battery manufacturer for regeneration;

(iii) Used oil that exhibits one or more of the characteristics of dangerous waste and is recycled in some other manner than being burned for energy recovery;

(iv) Scrap metal;

(v) Fuels produced from the refining of oil–bearing dangerous wastes along with normal process streams at a

petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices;

(vi) Oil reclaimed from dangerous waste resulting from normal petroleum refining, production, and transportation practices, which oil is to be refined along with normal process streams at a petroleum refining facility;

(vii) Coke and coal tar from the iron and steel industry that contains dangerous waste from the iron and steel production process;

(viii)(A) Dangerous waste fuel produced from oil-bearing dangerous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such dangerous wastes, where such dangerous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under WAC 173-303-515 (1)(e) and so long as no other dangerous wastes are used to produce the dangerous waste fuel;

(B) Dangerous waste fuel produced from oil-bearing dangerous waste from petroleum refining production, and transportation practices, where such dangerous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under WAC 173-303-515 (1)(e); and

(C) Oil reclaimed from oil-bearing dangerous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under WAC 173-303-515 (1)(e); and

(ix) Petroleum coke produced from petroleum refinery dangerous wastes containing oil at the same facility at which such wastes were generated, unless the resulting coke product exhibits one or more of the characteristics of dangerous waste in WAC 173-303-090.

(b) Any recyclable material listed in (a) of this subsection will be subject to the applicable requirements listed in subsection (4) of this section if the department determines, on a case-by-case basis, that:

(i) It is being accumulated, used, reused, or handled in a manner that poses a threat to public health or the environment; or

(ii) Due to the dangerous constituent(s) in it, any use or reuse would pose a threat to public health or the environment. Such recyclable material will be listed in WAC 173-303-016(6).

(3) The following recyclable materials are not subject to the requirements of this section but are subject to the requirements of WAC 173-303-070 through 173-303-110, 173-303-160, 173-303-500 through 173-303-525, and all applicable provisions of WAC 173-303-800 through 173-303-840:

(a) Recycling requirements for state-only dangerous wastes (see WAC 173-303-500);

(b) Recyclable materials used in a manner constituting disposal (see WAC 173-303-505);

(c) Dangerous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under Subpart O of 40 CFR Part 265 or WAC 173-303-670 (see WAC 173-303-510);

(d) Used oil that is burned for energy recovery in boilers and industrial furnaces that are not regulated under Subpart O of 40 CFR Part 265 or WAC 173-303-670, if such used oil:

(i) Exhibits one or more of the characteristics of a dangerous waste; or

(ii) Is designated as DW solely through WAC 173-303-084 or 173-303-101 through 173-303-103; or

(iii) Is designated solely as W001, (see WAC 173-303-515);

(e) Spent lead-acid batteries that are being reclaimed (see WAC 173-303-520);

(f) Recyclable materials from which precious metals are reclaimed (see WAC 173-303-525).

(4) Those recycling processes not specifically discussed in subsections (2) and (3) of this section are generally subject to regulation only up to and including storage prior to recycling.

The recycling process itself is generally exempt from regulation unless the department determines, on a case-by-case basis, that the recycling process poses a threat to public health or the environment.

Unless specified otherwise in subsections (2) and (3) of this section:

(a) Generators of recyclable materials are subject to all applicable requirements of this chapter including, but not limited to, WAC 173-303-170 through 173-303-230;

(b) Transporters of recyclable materials are subject to all applicable requirements of this chapter including, but not limited to, WAC 173-303-240 through 173-303-270;

(c) Owners or operators of facilities that receive recyclable materials from off-site and recycle these recyclable materials without storing them before they are recycled are subject to the following requirements:

(i) WAC 173-303-060, and

(ii) WAC 173-303-370;

(d) Owners or operators of facilities that store recyclable materials before they are recycled are subject to the following requirements including, but not limited to:

(i) For all recyclers, the applicable provisions of:

(A) WAC 173-303-280 through 173-303-395,

(B) WAC 173-303-420 through 173-303-440,

(C) WAC 173-303-800 through 173-303-840;

(ii) For recyclers with interim status permits, the applicable storage provisions of WAC 173-303-400 including Subparts F through L of 40 CFR Part 265;

(iii) For recyclers with final facility permits, the applicable storage provisions of:

(A) WAC 173-303-600 through 173-303-650, and

(B) WAC 173-303-660. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-120, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-120, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-120, filed 2/10/82.]

WAC 173-303-121 (Reserved.) [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-121, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-121, filed 4/18/84.]

WAC 173-303-130 Containment and control of infectious wastes. (Reserved.) [Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-130, filed 2/10/82.]

WAC 173-303-140 Disposal of extremely hazardous waste. No person shall dispose of designated EHW at any land disposal facility in the state other than the facility established and approved by the department for such purpose under chapter 70.105 RCW. A person is not prohibited from reclaiming, recycling, recovering, treating, detoxifying, neutralizing, or otherwise processing EHW to remove or reduce its harmful properties or characteristics, provided that such processing is performed in accordance with the requirements of this chapter 173-303 WAC. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-140, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-140, filed 2/10/82.]

WAC 173-303-141 Treatment, storage, or disposal of dangerous waste. (1) A person shall only offer a designated dangerous waste to a TSD facility which is operating either: Under a permit issued pursuant to the requirements of this chapter; or, if the TSD facility is located outside of this state, under interim status or a permit issued by United States EPA under 40 CFR Part 270, or under interim status or a permit issued by another state which has been authorized by United States EPA pursuant to 40 CFR Part 271.

(2) A person may offer a state only designated dangerous waste (not regulated as a hazardous waste by EPA) to a facility which is located outside of this state and which does not meet the requirements of subsection (1) of this section if:

(a) The facility receiving the waste will legitimately treat or recycle the dangerous waste (disposal is an unacceptable management practice);

(b) The generator has on file a letter or copy of a letter signed by the regulatory authority in the receiving state that the receiving facility may accept the waste;

(c) The generator uses a transporter with a valid EPA/state identification number;

(d) The generator complies with all other applicable requirements, including manifesting, packaging and labeling, with respect to the shipping of the waste. However, the EPA/state identification number for the receiving facility is not required on the manifest or annual report; and

(e) The generator receives from the receiving facility a signed and dated copy of the manifest. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-141, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-141, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-141, filed 2/10/82.]

WAC 173-303-145 Spills and discharges into the environment. (1) Purpose and applicability. This section sets forth the requirements for any person responsible for a spill or discharge into the environment, except when such release is otherwise permitted under state or federal law. For the purposes of complying with this section, a transporter who spills or discharges dangerous waste or hazardous substances during transportation will be considered the responsible person. This section shall apply when any dangerous waste or hazardous substance is intentionally or accidentally spilled or discharged into the environment (unless otherwise permitted) such that public health or the environment are threatened, regardless of the quantity of dangerous waste or hazardous substance.

(2) Notification. Any person who is responsible for a nonpermitted spill or discharge shall immediately notify the individuals and authorities described for the following situations:

(a) For spills or discharges onto the ground or into groundwater or surface water, notify all local authorities in accordance with the local emergency plan. If necessary, check with the local emergency service coordinator and the fire department to determine all notification responsibilities under the local emergency plan. Also, notify the appropriate regional office of the department of ecology; and

(b) For spills or discharges which result in emissions to the air, notify all local authorities in accordance with the local emergency plan. If necessary, check with the local emergency service coordinator and the fire department to determine all notification responsibilities under the local emergency plan. Also, in western Washington notify the local air pollution control authority, or in eastern Washington notify the appropriate regional office of the department of ecology.

(3) Mitigation and control. The person responsible for a nonpermitted spill or discharge shall take appropriate immediate action to protect human health and the environment (e.g., diking to prevent contamination of state waters, shutting of open valves).

(a) In addition, the department may require the person responsible for a spill or discharge to:

(i) Clean up all released dangerous wastes or hazardous substances, or to take such actions as may be required or approved by federal, state, or local officials acting within the scope of their official responsibilities. This may include complete or partial removal of released dangerous wastes or hazardous substances as may be justified by the nature of the released dangerous wastes or hazardous substances, the human and environmental circumstances of the incident, and protection required by the Water Pollution Control Act, chapter 90.48 RCW;

(ii) Designate and treat, store or dispose of all soils, waters, or other materials contaminated by the spill or discharge in accordance with this chapter 173-303 WAC. The department may require testing in order to

determine the amount or extent of contaminated materials, and the appropriate designation, treatment, storage, or disposal for any materials resulting from clean-up; and

(iii) If the property on which the spill or discharge occurred is not owned or controlled by the person responsible for the incident, restore the area impacted by the spill or discharge, and replenish resources (e.g., fish, plants) in a manner acceptable to the department.

(b) Where immediate removal or temporary storage of spilled or discharged dangerous wastes or hazardous substances is necessary to protect human health or the environment, the department may direct that removal be accomplished without a manifest, by transporters who do not have EPA/state identification numbers.

(4) Nothing in WAC 173-303-145 shall eliminate any obligations to comply with reporting requirements which may exist in a permit or under other state or federal regulations. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-145, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-145, filed 2/10/82.]

WAC 173-303-150 Division, dilution, and accumulation. (1) Any action taken to evade the intent of this regulation by dividing or diluting wastes to change their designation shall be prohibited, except for the purposes of treating, neutralizing, or detoxifying such wastes.

(2) Separation of a homogeneous waste into heterogeneous phases (e.g., separation of a suspension into sludge and liquid phases, or of a solvent/water mixture into solvent and water phases, etc.) shall not be considered as division, provided that the person generating the waste either:

(a) Designates the homogeneous waste before separation, and handles the entire waste accordingly; or

(b) Designates each phase of the heterogeneous waste, in accordance with the dangerous waste designation requirements of this chapter, and handles each phase accordingly.

(3) For the purposes of designation, quantities of continuously generated wastes shall be summed monthly. All wastes generated less frequently than once a month shall be considered as batch or single event wastes. [Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-150, filed 2/10/82. Formerly WAC 173-302-150.]

WAC 173-303-160 Containers. (1) Waste quantity. Containers and inner liners shall not be considered as a part of the waste when measuring or calculating the quantity of a dangerous waste. Only the weight of the residues in nonempty or nonrinsed containers or inner liners will be considered when determining waste quantities.

(2) A container or inner liner is "empty" when:

(a) All wastes in it have been taken out that can be removed using practices commonly employed to remove materials from that type of container or inner liner (e.g., pouring, pumping, aspirating, etc.) and, whichever quantity is least, either less than one inch of waste remains at the bottom of the container or inner liner, or the volume of waste remaining in the container or inner liner is equal to one percent or less of the container's total capacity, or, if the container's total capacity is greater than one hundred ten gallons, the volume of waste remaining in the container or inner liner is no more than 0.3 percent of the container's total capacity. A container which held compressed gas is empty when the pressure inside the container equals or nearly equals atmospheric pressure; and

(b) If the container or inner liner held acutely hazardous waste, as defined in WAC 173-303-040(2), or pesticides bearing the danger or warning label, the container or inner liner has been rinsed at least three times with an appropriate cleaner or solvent. The volume of cleaner or solvent used for each rinsing shall be ten percent or more of the container's or inner liner's capacity. In lieu of rinsing for containers that might be damaged or made unusable by rinsing with liquids (e.g., fiber or cardboard containers without inner liners), an empty container may be vacuum cleaned, struck, with the open end of the container up, three times (e.g., on the ground, with a hammer or hand) to remove or loosen particles from the inner walls and corners, and vacuum cleaned again. Equipment used for the vacuum cleaning of residues from containers or inner liners must be decontaminated before discarding, in accordance with procedures approved by the department.

Any rinsate or vacuumed residue which results from the cleaning of containers or inner liners shall whenever possible be reused in a manner consistent with the original intended purpose of the substance in the container or inner liner. In the case of a farmer, if the rinsate is a pesticide residue then the rinsate shall be managed or reused in a manner consistent with the instructions on the pesticide label, provided that when the label instructions specify disposal or burial, such disposal or burial must be on the farmer's own (including rented, leased or tenanted) property. Otherwise, the rinsate shall be checked against the designation requirements (WAC 173-303-070 through 173-303-103) and, if designated, managed according to the requirements of this chapter.

(3) Any residues remaining in containers or inner liners that are "empty" as described in subsection (2) of this section will not be subject to the requirements of this chapter, and will not be considered as accumulated wastes for the purposes of calculating waste quantities.

(4) A person may petition the department to approve alternative container rinsing processes in accordance with WAC 173-303-910(1). [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-160, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-160, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-160, filed 2/10/82. Formerly WAC 173-302-140.]

WAC 173-303-161 Overpacked containers (labpacks). Small containers of dangerous waste may be

placed in overpacked drums (or labpacks) provided that the following conditions are met:

(1) Hazardous waste must be packaged in nonleaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the contained waste. Inside containers must be tightly and securely sealed and, to the extent possible, should be full and have as little air as possible in them to minimize voids. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR Parts 173, 178, and 179), if those regulations specify a particular inside container for the waste;

(2) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR Parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and absorbent material;

(3) The absorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers in accordance with WAC 173-303-395 (1)(b);

(4) Incompatible wastes, as defined in WAC 173-303-040, must not be placed in the same outside container; and

(5) Reactive wastes, other than cyanide- or sulfide-bearing waste as defined in WAC 173-303-090 (7)(a)(v), must be treated or rendered nonreactive prior to packaging in accordance with subsections (1) through (4) of this section. Cyanide- and sulfide-bearing reactive waste may be packed in accordance with subsections (1) through (4) of this section without first being treated or rendered nonreactive.

(6) An itemized listing of the chemicals, their concentrations and quantities per labpack must be kept by the generator and must be readily available in case of an emergency during shipment, and for the purposes of preparing annual reports under WAC 173-303-220. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-161, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-161, filed 4/18/84.]

WAC 173-303-170 Requirements for generators of dangerous waste. (1) A person shall be a dangerous waste generator if his solid waste is designated by the requirements of WAC 173-303-070 through 173-303-103.

(a) The generator shall be responsible for designating his waste as DW or EHW.

(b) The generator may request an exemption for his dangerous waste according to the procedures of WAC 173-303-072.

(2) A dangerous waste generator shall notify the department and obtain an EPA/state identification number as required by WAC 173-303-060, and shall comply with the requirements of WAC 173-303-170 through 173-303-230.

(3) Except for the accumulation and storage of dangerous wastes for less than ninety days as allowed under WAC 173-303-200, any generator who transfers, stores, treats, or disposes of dangerous waste on-site shall perform his operations in accordance with the TSD facility requirements of this chapter.

(4) The generator of a moderate risk waste may, upon approval by the department, for moderate risk waste only:

(a) Develop and implement an alternative manifest mechanism in lieu of the requirements of WAC 173-303-180 for moderate risk waste shipments. Such alternative mechanism might employ a single manifest for multiple shipments of the same moderate risk waste, might not require signatures or multiple copies for transporters or designated receiving facilities, and might include such other factors as the generator might develop and the department approve. The generator must, however, demonstrate to the department's satisfaction before implementing the alternative mechanism that it will assure accurate tracking and recording of waste shipments, and that the mechanism provides for the proper submission of exception reports as specified in WAC 173-303-220(2). The generator shall be responsible for assuring that all transporters and facilities involved in implementing the alternative manifest mechanism are complying with the terms and conditions of the mechanism as approved by the department; and

(b) Pursuant to the requirements of WAC 173-303-200, accumulate moderate risk waste in containers and tanks for up to one hundred eighty days, and accumulate moderate risk waste in piles for up to ninety days provided that he complies with WAC 173-303-660 (2), (3)(a), (b)(i), (ii)(A), (7), (8), and (9)(a). [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-170, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-170, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-170, filed 2/10/82.]

WAC 173-303-180 Manifest. Before transporting dangerous waste or offering dangerous waste for transport off the site of generation, the generator shall prepare a manifest and shall follow all applicable procedures described in this section.

(1) This subsection describes the form and contents of dangerous waste manifests. 40 CFR Part 262 Appendix - Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions) is adopted by reference. The manifest shall be EPA Form 8700-22 and, if necessary, EPA Form 8700-22A. The manifest must be prepared in accordance with the instructions for these forms, as described in the uniform manifest Appendix of 40 CFR Part 262, and in addition must contain the following information in the specified shaded items of the uniform manifest:

(a) Item D, and O if the continuation sheet 8700-22A is used - The first transporter's telephone number must be provided in this space;

(b) Item F, and Q if the continuation sheet 8700-22A is used - If a second transporter is used, then the second transporter's telephone number must be provided in this space;

(c) Item H - The designated receiving facility's telephone number must be provided in this space; and

(d) Item I, and R if the continuation sheet 8700-22A is used - The dangerous waste number (e.g., F001, D006, WT02, P102) must be provided in this space for each corresponding waste entered and described under Item 11, and 28 if the continuation sheet 8700-22A is used. As discussed in subsection (5) of this section, dangerous waste numbers WL01 or WL02 may be used in this space for labpacks.

(2) The manifest shall consist of enough copies to provide the generator, transporter(s), and facility owner/operator with a copy, and a copy for return to the generator.

(3) Manifest procedures.

(a) The generator shall:

(i) Sign and date the manifest certification by hand;

(ii) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and

(iii) Retain one copy in accordance with WAC 173-303-210, Generator recordkeeping.

(b) The generator shall give the remaining manifest copies to the transporter.

(c) If the transporter is unable to deliver the dangerous waste shipment to the designated facility or the alternate facility, the generator must either designate another facility or instruct the transporter to return the waste shipment.

(d) For shipments of dangerous waste within the United States solely by water (bulk shipments only), the generator must send three copies of the manifest dated and signed in accordance with this section to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(e) For rail shipments of dangerous waste within the United States which originate at the site of generation, the generator must send at least three copies of the manifest dated and signed in accordance with this section to:

(i) The next nonrail transporter, if any; or

(ii) The designated facility if transported solely by rail; or

(iii) The last rail transporter to handle the waste in the United States if exported by rail.

(4) Special requirements for shipments to the Washington EHW facility at Hanford.

(a) All generators planning to ship dangerous waste to the EHW facility at Hanford shall notify the facility in writing and by sending a copy of the prepared manifest prior to shipment.

(b) The generator shall not ship any dangerous waste without prior approval from the EHW facility. The state operator may exempt classes of waste from the requirements of WAC 173-303-180 (4)(a) and (b) where small quantities or multiple shipments of a previously approved waste are involved, or there exists an emergency and potential threat to public health and safety.

(5) Special instructions for shipment of labpacks. For purposes of completing the uniform dangerous waste manifest, dangerous waste numbers WL01 (for labpacks containing wastes designated as EHW) or WL02 (for labpacks containing wastes designated only as DW) may be used to complete Items I and R in lieu of the dangerous waste numbers that would otherwise be assigned to the contents of the labpack. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-180, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-180, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-180, filed 2/10/82. Formerly WAC 173-302-180 and 173-302-190.]

WAC 173-303-190 Preparing dangerous waste for transport. The generator shall fulfill the following requirements before transporting off-site or offering for off-site transport any dangerous waste.

(1) Packaging. The generator shall package all dangerous waste for transport in accordance with United States DOT regulations on packaging, 49 CFR Parts 173, 178, and 179.

(2) Labeling. The generator shall label each package in accordance with United States DOT regulations, 49 CFR Part 172.

(3) Marking. The generator shall:

(a) Mark each package of dangerous waste in accordance with United States DOT regulations, 49 CFR Part 172; and

(b) Mark each package containing one hundred ten gallons or less of dangerous waste with the following, or equivalent words and information, displayed in accordance with 49 CFR 172.304:

HAZARDOUS WASTE - State and federal law prohibits improper disposal. If found, contact the nearest police or public safety authority, and the Washington state department of ecology or the United States Environmental Protection Agency.

Generator's Name and Address

. . . . . .

. . . . . .

. . . . . .

Manifest Document Number

. . . . . .

(4) Placarding. The generator shall placard, or offer to the initial transporter all appropriate placards in accordance with United States DOT regulations, 49 CFR Part 172, Subpart F. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-190, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-190, filed 2/10/82.]

WAC 173-303-200 Accumulating dangerous waste on-site. (1) A generator, not to include transporters as referenced in WAC 173-303-240(3), may accumulate dangerous waste on-site without a permit for ninety days or less after the date of generation, provided that:

(a) All such waste is shipped off-site to a designated facility or placed in an on-site facility which is permitted by the department under WAC 173-303-800 through 173-303-845 in ninety days or less. The department may, on a case-by-case basis, grant a maximum thirty day extension to this ninety day period if dangerous wastes must remain on-site due to unforeseen, temporary and uncontrollable circumstances. A generator who accumulates dangerous waste for more than ninety days is an operator of a storage facility and is subject to the facility requirements of this chapter and the permit requirements of this chapter as a storage facility unless he has been granted an extension to the ninety day period allowed pursuant to this subsection;

(b) The waste is placed in containers and the generator complies with WAC 173-303-630 (2), (3), (4), (5), (6), (8), and (9), or the waste is placed in tanks and the generator complies with WAC 173-303-640 (3), (4), (5), (6), and (7), except that in lieu of the "sufficient freeboard" requirement of WAC 173-303-640 (3)(b)(ii) for uncovered tanks, the generator must maintain a minimum freeboard of two feet. For container accumulation (including satellite areas as described in subsection (2)(c) of this section), the department may require that the accumulation area include secondary containment in accordance with WAC 173-303-630(7), if the department determines that there is a potential threat to public health or the environment due to the nature of the wastes being accumulated, or due to a history of spills or releases from accumulated containers. In addition, any new container accumulation areas (but not including new satellite areas, unless required by the department) constructed or installed after September 30, 1986, must comply with the provisions of WAC 173-303-630(7);

(c) The date upon which each period of accumulation begins is marked and clearly visible for inspection on each container;

(d) While being accumulated on site, each container and tank is labeled or marked clearly with the words "dangerous waste" or "hazardous waste." Each container or tank must also be marked with a label or sign which identifies the major risk(s) associated with the waste in the container or tank for employees, emergency response personnel and the public (Note—If there is already a system in use that performs this function in accordance with local, state, or federal regulations, then such system will be adequate); and

(e) The generator complies with the requirements for facility operators contained in WAC 173-303-330 through 173-303-360 (personnel training, preparedness and prevention, contingency plan and emergency procedures, and emergencies): *Provided*, That if none of the dangerous wastes he generates are regulated as EHW under WAC 173-303-081 and no quantity of dangerous wastes he generates in one month or one batch ever exceeds 2200 pounds (1000 kilograms), then the generator need comply with the requirements of WAC 173-303-330 through 173-303-360 only if:

(i) He accumulates dangerous waste on-site for ten or more calendar days; or

(ii) He is directed by the department to so comply, due to potential threats to public health or the environment. In such case, the department may require that he comply with all of or only parts of WAC 173-303-330 through 173-303-360, as necessary to mitigate the potential threats to public health or the environment.

(2) For the purposes of this section, the ninety-day accumulation period begins on the date that:

(a) The generator first generates a dangerous waste; or

(b) The quantity (or aggregated quantity) of dangerous waste being accumulated by a small quantity generator first exceeds the quantity exclusion limit for such waste (or wastes); or

(c) The quantity of dangerous waste being accumulated in containers in a satellite area exceeds fifty-five gallons of dangerous waste or one quart of acutely hazardous waste (see WAC 173-303-040(2)). For the purposes of this section, a satellite area shall be a location at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-200, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-200, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-200, filed 2/10/82.]

WAC 173-303-201 Special accumulation standards. (1) This section applies to persons who generate less than 2200 pounds (1000 kg) per month of dangerous waste. The special provisions of this section do not apply to any acutely hazardous wastes (as defined in WAC 173-303-040(2)) that are being generated or accumulated by the generator.

(2) For purposes of accumulating dangerous waste, persons who generate less than 2200 pounds (1000 kg) per month of dangerous waste are subject to all applicable provisions of WAC 173-303-200 except that in lieu of the ninety-day accumulation period, dangerous waste may be accumulated for one hundred eighty days or less. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-201, filed 6/3/86.]

WAC 173-303-210 Generator recordkeeping. (1) The generator shall keep a copy of each manifest signed by the initial transporter in accordance with WAC 173-303-180(3), manifest procedures, for three years, or until he receives a signed copy from the designated facility which received the waste. The signed facility copy shall be retained for at least three years from the date the waste was accepted by the initial transporter.

(2) The generator shall keep a copy of each annual report and exception report as required by WAC 173-

303-220 for a period of at least three years from the due date of each report.

(3) The generator shall keep records of any test results, waste analyses, or other determinations made in accordance with WAC 173-303-170(1) for designating dangerous waste for at least three years from the date that the waste was last transferred for on-site or off-site TSD.

(4) Any other records required for generators accumulating wastes on-site as described in WAC 173-303-170 (4)(b) or 173-303-200 must be retained for at least three years, including, but not limited to such items as inspection logs and operating records.

(5) The periods of retention for any records described in this section shall be automatically extended during the course of any unresolved enforcement action requiring those records or upon request by the director. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-210, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-210, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-210, filed 2/10/82.]

WAC 173-303-220 Generator reporting. The generator shall submit the following reports to the department by the specified due date for each report, or within the time period allowed for each report.

(1) Annual reports.

(a) A generator who holds an active EPA/state identification number shall submit annual reports to the department, on the Generator Annual Dangerous Waste Report - Form 4 according to the instructions on the form (copies are available from the department), no later than March 1 for the preceding calendar year.

(b) In addition, any generator who stores, treats, or disposes of dangerous waste on-site shall comply with the annual reporting requirements of WAC 173-303-390, Facility reporting.

(2) Exception reports.

(a) A generator who does not receive a copy of the manifest with the handwritten signature of the owner/operator of the designated facility within thirty-five days of the date the waste was accepted by the initial transporter must contact the transporter(s) and/or facility to determine the status of the dangerous waste shipment.

(b) A generator must submit an exception report to the department if he has not received a copy of the manifest with the handwritten signature of the owner/operator of the designated facility within forty-five days of the date the waste was accepted by the initial transporter.

(c) The exception report must include:

(i) A legible copy of the manifest for which the generator does not have confirmation of delivery; and

(ii) A cover letter signed by the generator or his representative explaining the efforts taken to locate the waste and the results of those efforts.

(d) The department may require a generator to submit exception reports in less than forty-five days if it finds that the generator frequently or persistently endangers public health or the environment through improper waste shipment practices.

(3) Additional reports. The director, as he deems necessary under chapter 70.105 RCW, may require a generator to furnish additional reports concerning the quantities and disposition of his dangerous waste. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-220, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-220, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-220, filed 2/10/82.]

WAC 173-303-230 Special conditions. (1) Exporting dangerous waste.

(a) The requirements of 40 CFR, Section 262.50 (a), (b) and (c), International Shipments, are adopted by reference.

(b) Copies of any exception reports submitted to the administrator of United States EPA shall be submitted to the director of the department.

(2) Importing dangerous waste. When importing dangerous waste from a foreign country into Washington state, the United States importer shall comply with all the requirements of this chapter for generators, including the requirements of WAC 173-303-180(1), except that:

(a) In place of the generator's name, address and EPA/state identification number, the name and address of the foreign generator and the importer's name, address and EPA/state identification number shall be used; and

(b) In place of the generator's signature on the certification statement, the United States importer or his agent shall sign and date the certification and obtain the signature of the initial transporter.

(3) Triple rinsing. For the purposes of this chapter, a person who stores, treats, disposes, transports, or offers for transport empty containers of dangerous waste that were for his own use shall not be treated as a generator or as a facility owner/operator if the containers are empty as defined in WAC 173-303-160(2), and either:

(a) The rinsate is not a dangerous waste under this chapter; or

(b) He reuses the rinsate in a manner consistent with the original product or, if he is a farmer and the rinsate contains pesticide residues, he reuses or manages the rinsate in a manner consistent with the instructions on the pesticide label, provided that when the label instructions specify disposal or burial, such disposal or burial must be on the farmer's own (including rented, leased or tenanted) property.

(4) Tank cars. A person rinsing out dangerous waste tote tanks, truck or railroad tank cars shall handle the rinsate according to this chapter, and according to chapter 90.48 RCW, Water pollution control. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-230, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-230, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW

70.95.260. 82-05-023 (Order DE 81-33), § 173-303-230, filed 2/10/82.]

WAC 173-303-240 Requirements for transporters of dangerous waste. (1) Transporters shall comply with the requirements of WAC 173-303-060, notification and identification numbers. Transporters who are involved in interstate transport shall use the identification number assigned to their national headquarters office, unless the department requires, on a case-by-case basis, that a transporter obtain his own unique EPA/state ID#. Transporters who are involved only in intrastate transport shall use the identification number assigned to their headquarters office located within the state. Transporters who must comply with the generator requirements as a result of a spill at a terminal or during transport shall obtain a separate generator EPA/state ID# for such spill or terminal.

(2) Any person who transports a dangerous waste shall comply with the requirements of WAC 173-303-240 through 173-303-270, when such dangerous waste is required to be manifested by WAC 173-303-180.

Any person who transports moderate risk waste shall, if the generator of the waste has implemented an alternative manifest mechanism approved by the department under WAC 173-303-170 (2)(b)(i), comply with the terms and conditions specified by the generator and approved by the department for the alternative manifest mechanism.

(3) Any person who transports a dangerous waste shall also comply with the requirements of WAC 173-303-170 through 173-303-230 for generators, if he:

(a) Transports dangerous waste into the state from another country; or

(b) Mixes dangerous waste of different United States DOT shipping descriptions by mixing them into a single container.

(4) These requirements shall not apply to on-site (as defined in WAC 173-303-040) transportation of dangerous waste by generators, or by owners/operators of permitted TSD facilities.

(5) Transporters may store manifested shipments of dangerous waste in containers meeting the requirements of WAC 173-303-190 (1), (2), and (3) for ten days or less. Transporters may not accumulate or store manifested shipments of dangerous waste for more than ten days. Reference to WAC 173-303-200 in 173-303-240(3) does not constitute authority for storage in excess of ten days for transporters. Transporters who do not comply with these conditions are subject to all applicable TSD facility requirements. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-240, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-240, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-240, filed 2/10/82. Formerly WAC 173-302-210.]

WAC 173-303-250 Dangerous waste acceptance, transport, and delivery. (1) A transporter shall not accept dangerous waste from a generator unless it is accompanied by a manifest signed by the generator in accordance with WAC 173-303-180, Manifest.

(2) Before transporting a dangerous waste shipment, the transporter shall sign and date the manifest, acknowledging acceptance of the dangerous waste. The transporter shall return a signed copy to the generator before commencing transport.

(3) The transporter shall insure that the manifest accompanies the dangerous waste shipment.

(4) A transporter who delivers a dangerous waste to another transporter, or to the designated facility shall:

(a) Obtain the date of delivery and the handwritten signature of that transporter or designated facility owner/operator on the manifest;

(b) Retain one copy of the manifest in accordance with WAC 173-303-260, Transporter recordkeeping; and

(c) Give the remaining copies of the manifest to the accepting transporter or designated facility.

(5) The transporter shall deliver the entire quantity of dangerous waste which he has accepted from a generator or a transporter to:

(a) The designated facility listed on the manifest; or

(b) The alternate designated facility, if the dangerous waste cannot be delivered to the designated facility because an emergency prevents delivery; or

(c) The next designated transporter; or

(d) The place outside the United States designated by the generator.

(6) If the dangerous waste cannot be delivered in accordance with subsection (5) of this section, the transporter shall contact the generator for further directions, and shall revise the manifest according to the generator's instructions.

(7) The requirements of subsections (3), (4), and (8) of this section do not apply to water (bulk shipment) transporters if:

(a) The dangerous waste is delivered by water (bulk shipment) to the designated facility;

(b) A shipping paper containing all the information required on the manifest (excluding the EPA/state identification numbers, generator certification, and signatures) accompanies the dangerous waste;

(c) The delivering transporter obtains the date of delivery and handwritten signature of the owner or operator of the designated facility on either the manifest or the shipping paper;

(d) The person delivering the dangerous waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility; and

(e) A copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with WAC 173-303-260(2).

(8) For shipments involving rail transportation, the requirements of subsections (3), (4), and (7) of this section do not apply and the following requirements do apply.

(a) When accepting dangerous waste from a nonrail transporter, the initial rail transporter must:

(i) Sign and date the manifest acknowledging acceptance of the dangerous waste;

(ii) Return a signed copy of the manifest to the nonrail transporter;

(iii) Forward at least three copies of the manifest to:

(A) The next nonrail transporter, if any; or

(B) The designated facility, if the shipment is delivered to that facility by rail; or

(C) The last rail transporter designated to handle the waste in the United States;

(iv) Retain one copy of the manifest and rail shipping paper in accordance with WAC 173-303-260(2).

(b) Rail transporters must ensure that a shipping paper containing all the information required on the manifest (excluding the EPA/state identification numbers, generator certification, and signatures) accompanies the dangerous waste at all times.

(c) When delivering dangerous waste to the designated facility, a rail transporter must:

(i) Obtain the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper (if the manifest has not been received by the facility); and

(ii) Retain a copy of the manifest or signed shipping paper in accordance with WAC 173-303-260(2).

(d) When delivering dangerous waste to a nonrail transporter a rail transporter must:

(i) Obtain the date of delivery and the handwritten signature of the next nonrail transporter on the manifest; and

(ii) Retain a copy of the manifest in accordance with WAC 173-303-260(2).

(e) Before accepting dangerous waste from a rail transporter, a nonrail transporter must sign and date the manifest and provide a copy to the rail transporter.

(9) Transporters who transport dangerous waste out of the United States shall:

(a) Indicate on the manifest the date the dangerous waste left the United States;

(b) Sign the manifest and retain one copy in accordance with WAC 173-303-260(3), Transporter recordkeeping; and

(c) Return a signed copy of the manifest to the generator. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-250, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-250, filed 2/10/82. Formerly WAC 173-302-220 and 173-302-230.]

WAC 173-303-260 Transporter recordkeeping. (1) A transporter of dangerous waste shall keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three years from the date the dangerous waste was accepted by the initial transporter.

(2) Water (bulk shipment) and rail transporter recordkeeping.

(a) For shipments delivered to the designated facility by rail or water (bulk shipment), each rail or water (bulk shipment) transporter shall retain a copy of a shipping paper containing all the information required on a manifest (excluding the EPA/state identification numbers, generator certification, and signatures) for a period of three years from the date the dangerous waste was accepted by the initial transporter.

(b) For shipments of dangerous waste by rail within the United States:

(i) The initial rail transporter must keep a copy of the manifest and shipping paper with all the information required on a manifest (excluding the EPA/state identification numbers, generator certification, and signatures) for a period of three years from the date the dangerous waste was accepted by the initial transporter; and

(ii) The final rail transporter must keep a copy of the signed manifest (or the shipping paper if signed by the designated facility in lieu of the manifest) for a period of three years from the date the dangerous waste was accepted by the initial transporter.

(3) A transporter who transports dangerous waste out of the United States shall keep a copy of the manifest, indicating that the dangerous waste left the United States, for a period of three years from the date the dangerous waste was accepted by the initial transporter.

(4) The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity, or as requested by the director. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-260, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-260, filed 2/10/82.]

WAC 173-303-270 Discharges during transport. In the event of a spill or discharge of dangerous waste during transportation, the transporter shall comply with the requirements of WAC 173-303-145, Spills and discharges into the environment. In addition to the notices required by WAC 173-303-145, the transporter shall provide the following notifications:

(1) Give notice to the generator of the waste that a discharge has occurred;

(2) Give notice to the National Response Center (800-424-8802 or 202-426-2675), if required by 49 CFR 171.15;

(3) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington D.C., 20590; and,

(4) For a water (bulk shipment) transporter, give the same notice as required by 33 CFR 153.203 for oil and hazardous substances. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-270, filed 4/18/84. Statutory Authority: Chapter

70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-270, filed 2/10/82.]

WAC 173-303-280 General requirements for dangerous waste management facilities. (1) Applicability. The requirements of WAC 173-303-280 through 173-303-395 apply to all owners and operators of facilities which store, treat, or dispose of dangerous wastes and which must be permitted under the requirements of this chapter 173-303 WAC, unless otherwise specified in this chapter. The owner or operator of a facility which manages moderate risk waste may comply with the special requirements specified in WAC 173-303-550 through 173-303-560 in lieu of the general requirements of WAC 173-303-280 through 173-303-395, but only for those moderate risk wastes which he manages. Whenever a shipment of dangerous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements for generators, WAC 173-303-170 through 173-303-230.

(2) Imminent hazard. Notwithstanding any provisions of this chapter, enforcement actions may be brought in the event that the management practices of a facility present an imminent and substantial hazard to the public health and the environment, regardless of the quantity or concentration of a dangerous waste.

(3) Identification numbers. Every facility owner or operator shall apply for an EPA/state identification number from the department in accordance with WAC 173-303-060. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-280, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-280, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-280, filed 2/10/82.]

WAC 173-303-290 Required notices. (1) The facility owner or operator who is receiving dangerous waste from a foreign source shall notify the department in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

(2) Before transferring ownership or operation of a facility during its active life or post-closure care period, the owner or operator shall notify the new owner or operator in writing of the requirements of this chapter 173-303 WAC.

(3) The owner or operator of a facility that receives dangerous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record required under WAC 173-303-380(1). [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-290, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-290, filed 2/10/82.]

WAC 173-303-300 General waste analysis. (1) Purpose. This section requires the facility owner or operator to confirm his knowledge about a dangerous waste before he stores, treats, or disposes of it. The purpose for the analysis is to insure that a dangerous waste is managed properly.

(2) The owner or operator shall obtain a detailed chemical, physical, and/or biological analysis of a dangerous waste before he stores, treats, or disposes of it. This analysis must contain the information necessary to manage the waste in accordance with the requirements of this chapter 173-303 WAC. The analysis may include or consist of existing published or documented data on the dangerous waste, or on waste generated from similar processes, or data obtained by testing, if necessary.

(3) The owner or operator of an off-site facility shall confirm, by analysis if necessary, that each dangerous waste received at the facility matches the identity of the waste specified on the accompanying manifest or shipping paper.

(4) Analysis shall be repeated as necessary to ensure that it is accurate and current. At a minimum, analysis must be repeated:

(a) When the owner or operator has been notified, or has reason to believe, that the process or operation generating the dangerous waste has significantly changed; and

(b) When a dangerous waste received at an off-site facility does not match the identity of the waste specified on the manifest or the shipping paper.

(5) Waste analysis plan. The owner or operator shall develop and follow a written waste analysis plan which describes the procedures he will use to comply with the waste analysis requirements of subsections (1), (2), (3), and (4) of this section. He must keep this plan at the facility, and the plan must contain at least:

(a) The parameters for which each dangerous waste will be analyzed, and the rationale for selecting these parameters;

(b) The methods of obtaining or testing for these parameters;

(c) The methods for obtaining representative samples of wastes for analysis (representative sampling methods are discussed in WAC 173-303-110(2));

(d) The frequency with which analysis of a waste will be reviewed or repeated to ensure that the analysis is accurate and current;

(e) The waste analyses which generators have agreed to supply;

(f) Where applicable, the methods for meeting the additional waste analysis requirements for specific waste management methods as specified in 40 CFR Part 265 Subparts F through R for interim status facilities and in WAC 173-303-630 through 173-303-670 for final status facilities; and

(g) For off-site facilities, the procedures for confirming that each dangerous waste received matches the identity of the waste specified on the accompanying manifest or shipping paper. This includes at least:

(i) The procedures for identifying each waste movement at the facility; and

(ii) The method for obtaining a representative sample of the waste to be identified, if the identification method includes sampling. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-300, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-300, filed 2/10/82.]

WAC 173-303-310 Security. (1) The owner or operator shall comply with the requirements of this section, unless he can demonstrate to the department that:

(a) Physical contact with wastes or equipment within the active portion of the facility will not injure persons or livestock; and

(b) Disturbance of the wastes or equipment within the active portion of the facility by persons or livestock will not result in violations of this chapter 173-303 WAC.

(2) A facility must have:

(a) Signs posted at each entrance to the active portion, and at other locations, in sufficient numbers to be seen from any approach to the active portion. Signs must bear the legend, "Danger-unauthorized personnel keep out," or an equivalent legend, written in English, and must be legible from a distance of twenty-five feet or more; and either

(b) A 24-hour surveillance system which continuously monitors and controls entry onto the active portion of the facility; or

(c) An artificial or natural barrier, or a combination of both, which completely surrounds the active portion of the facility, with a means to control access through gates or other entrances to the active portion of the facility at all times.

(3) In lieu of WAC 173-303-310(2), above, the owner or operator of a totally enclosed treatment facility or an elementary neutralization or wastewater treatment unit (as defined in WAC 173-303-040) must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock into or onto the totally enclosed treatment facility or the elementary neutralization or wastewater treatment unit. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-310, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-310, filed 2/10/82. Formerly WAC 173-302-290.]

WAC 173-303-320 General inspection. (1) The owner or operator shall inspect his facility to prevent malfunctions and deterioration, operator errors, and discharges which may cause or lead to the release of dangerous waste constituents to the environment, or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(2) The owner or operator shall develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that help prevent, detect, or respond to hazards to the public health or the environment. In addition:

(a) He must keep the schedule at the facility;

(b) The schedule must identify the types of problems which are to be looked for during inspections;

(c) The schedule shall indicate the frequency of inspection for specific items. The frequency should be based on the rate of possible deterioration of equipment, and the probability of an environmental or human health incident. Areas subject to spills must be inspected daily when in use. The inspection schedule shall also include the applicable items and frequencies required for the specific waste management methods described in 40 CFR Part 265 Subparts F through R for interim status facilities and in WAC 173-303-630 through 173-303-670 for final status facilities; and

(d) The owner or operator shall keep an inspection log or summary, including at least the date and time of the inspection, the printed name and the handwritten signature of the inspector, a notation of the observations made, and the date and nature of any repairs or remedial actions taken. The log or summary must be kept at the facility for at least three years from the date of inspection.

(3) The owner or operator shall remedy any problems revealed by the inspection, on a schedule which prevents hazards to the public health and environment. Where a hazard is imminent or has already occurred, remedial action must be taken immediately. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-320, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-320, filed 2/10/82.]

WAC 173-303-330 Personnel training. (1) Training program. The facility owner or operator shall provide a program of classroom instruction or on-the-job training for facility personnel. This program must teach personnel to perform their duties in a way that ensures the facility's compliance with this chapter 173-303 WAC, must teach facility personnel dangerous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed, must ensure that facility personnel are able to respond effectively to emergencies, and shall include those elements set forth in the training plan required in subsection (2) of this section. In addition:

(a) The training program shall be directed by a person knowledgeable in dangerous waste management procedures, and must include training relevant to the positions in which the facility personnel are employed;

(b) Facility personnel must participate in an annual review of the training provided in the training program;

(c) This program must be successfully completed by the facility personnel:

(i) Within six months after these regulations become effective; or

(ii) Within six months after their employment at or assignment to the facility, or to a new position at the facility, whichever is later.

Employees hired after the effective date of these regulations must be supervised until they complete the training program; and

(d) At a minimum, the training program shall familiarize facility personnel with emergency equipment and systems, and emergency procedures. The program shall include other parameters as set forth by the department, but at a minimum shall include, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

(2) Written training plan. The owner or operator shall develop a written training plan which must be kept at the facility and which must include the following documents and records:

(a) For each position related to dangerous waste management at the facility, the job title, the job description, and the name of the employee filling each job. The job description must include the requisite skills, education, other qualifications, and duties for each position;

(b) A written description of the type and amount of both introductory and continuing training required for each position; and

(c) Records documenting that facility personnel have received and completed the training required by this section.

(3) Training records. Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-330, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-330, filed 2/10/82. Formerly WAC 173-302-320.]

WAC 173-303-340 Preparedness and prevention. Facilities shall be designed, constructed, maintained and operated to minimize the possibility of fire, explosion, or any unplanned sudden or nonsudden release of dangerous waste or dangerous waste constituents to air, soil, or surface or ground water which could threaten the public health or the environment. This section describes preparations and preventive measures which help avoid or mitigate such situations.

(1) Required equipment. All facilities must be equipped with the following, unless it can be demonstrated to the department that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction to facility personnel;

(b) A device, such as a telephone or a hand-held, two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(2) Access to communications or alarms. Personnel must have immediate access to the signalling devices described in the situations below:

(a) Whenever dangerous waste is being poured, mixed, spread, or otherwise handled, all personnel involved must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required in subsection (1) of this section;

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone or a hand-held, two-way radio, capable of summoning external emergency assistance, unless such a device is not required in subsection (1) of this section.

(3) Aisle space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the department that aisle space is not needed for any of these purposes.

(4) Arrangements with local authorities. The owner or operator shall attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations, unless the hazards posed by wastes handled at the facility would not require these arrangements:

(a) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of dangerous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

(b) Arrangements to familiarize local hospitals with the properties of dangerous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility;

(c) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

(d) Where more than one party might respond to an emergency, agreements designating primary emergency authority and agreements with any others to provide support to the primary emergency authority.

(5) Where state or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-340, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-340, filed 2/10/82.]

WAC 173-303-350 Contingency plan and emergency procedures. (1) Purpose. The purpose of this section and WAC 173-303-360 is to lessen the potential impact on the public health and the environment in the event of an emergency circumstance, including a fire, explosion, or unplanned sudden or nonsudden release of dangerous waste or dangerous waste constituents to air, soil, surface water, or ground water by a facility. A contingency plan must be developed to lessen the potential impacts of such emergency circumstances, and the plan shall be implemented immediately in such emergency circumstances.

(2) Contingency plan. Each owner or operator must have a contingency plan at his facility for use in emergencies or sudden or nonsudden releases which threaten the public health and the environment. If the owner or operator has already prepared a spill prevention control and countermeasures (SPCC) plan in accordance with Part 112 of Title 40 CFR or Part 1510 of chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate dangerous waste management provisions that are sufficient to comply with the requirements of this section and WAC 173-303-360.

(3) The contingency plan must contain the following:

(a) A description of the actions which facility personnel must take to comply with this section and WAC 173-303-360;

(b) A description of the actions which shall be taken in the event that a dangerous waste shipment, which is damaged or otherwise presents a hazard to the public health and the environment, arrives at the facility, and is not acceptable to the owner or operator, but cannot be transported, pursuant to the requirements of WAC 173-303-370(5), Manifest system, reasons for not accepting dangerous waste shipments;

(c) A description of the arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services;

(d) A current list of names, addresses, and phone numbers (office and home) of all persons qualified to act as the emergency coordinator required under WAC 173-303-360(1). Where more than one person is listed, one must be named as primary emergency coordinator, and others must be listed in the order in which they will assume responsibility as alternates. For new facilities only, this list may be provided to the department at the time of facility certification (as required by WAC 173-303-810 (14)(a)(i)), rather than as part of the permit application;

(e) A list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities; and

(f) An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe the signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.

(4) Copies of contingency plan. A copy of the contingency plan and all revisions to the plan shall be:

(a) Maintained at the facility; and

(b) Submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

(5) Amendments. The owner or operator shall review and immediately amend the contingency plan, if necessary, whenever:

(a) Applicable regulations or the facility permit are revised;

(b) The plan fails in an emergency;

(c) The facility changes (in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of dangerous waste or dangerous waste constituents, or in a way that changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-350, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-350, filed 2/10/82. Formerly chapter 173-302 WAC.]

WAC 173-303-360 Emergencies. (1) Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, required by WAC 173-303-350(2), all operations and activities at the facility, the location and properties of all wastes handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

(2) Emergency procedures. The following procedures shall be implemented in the event of an emergency.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

(i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(ii) Notify appropriate state or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials.

(c) Concurrently, the emergency coordinator shall assess possible hazards to human health and the environment (considering direct, indirect, immediate, and long-term effects) that may result from the release, fire, or explosion.

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, he must report his findings as follows:

(i) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(ii) He must immediately notify the department and either the government official designated as the on-scene coordinator, or the National Response Center (using their 24-hour toll free number (800) 424-8802).

(e) His assessment report must include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident (e.g., release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health or the environment outside the facility.

(f) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other dangerous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(g) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(h) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(i) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(i) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(j) The owner or operator must notify the department, and appropriate local authorities, that the facility is in compliance with (i) of this subsection before operations are resumed in the affected area(s) of the facility.

(k) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within fifteen days after the incident, he must submit a written report on the incident to the department. The report must include:

(i) Name, address, and telephone number of the owner or operator;

(ii) Name, address, and telephone number of the facility;

(iii) Date, time, and type of incident (e.g., fire, explosion);

(iv) Name and quantity of material(s) involved;

(v) The extent of injuries, if any;

(vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(vii) Estimated quantity and disposition of recovered material that resulted from the incident. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-360, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-360, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-360, filed 2/10/82. Formerly chapter 173-302 WAC.]

WAC 173-303-370 Manifest system. (1) Applicability. The requirements of this section apply to owners and operators who receive dangerous waste from off-site sources.

(2) If a facility receives dangerous waste accompanied by a manifest, the owner or operator, or his agent, must:

(a) Sign and date each copy of the manifest to certify that the dangerous waste covered by the manifest was received;

(b) Note any significant discrepancies in the manifest, as described in subsection (4) of this section, on each copy of the manifest;

(c) Immediately give the transporter at least one copy of the signed manifest;

(d) Within thirty days after the delivery, send a copy of the manifest to the generator; and

(e) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(3) If a facility receives, from a rail or water (bulk shipment) transporter, dangerous waste which is accompanied by a manifest or shipping paper containing all the information required on the manifest (excluding the EPA/state identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

(a) Sign and date each copy of the manifest or shipping paper to certify that the dangerous waste covered by the manifest or shipping paper was received;

(b) Note any significant discrepancies in the manifest or shipping paper, as described in subsection (4) of this section, on each copy of the manifest or shipping paper;

(c) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper;

(d) Within thirty days after the delivery, send a copy of the signed and dated manifest or shipping paper to the generator. However, if the manifest is not received within thirty days after the delivery, the owner or operator, or his agent, must send a copy of the signed and dated shipping paper to the generator; and

(e) Retain at the facility a copy of each shipping paper and manifest for at least three years from the date of delivery.

(4) Manifest discrepancies.

(a) Manifest discrepancies are significant discrepancies between the quantity or type of dangerous waste designated on the manifest or shipping paper and the quantity or type of dangerous waste a facility actually receives. Significant discrepancies in quantity are variations greater than ten percent in weight for bulk quantities (e.g., tanker trucks, railroad tank cars, etc.), or any variations in piece count for nonbulk quantities (i.e., any missing container or package would be a significant discrepancy). Significant discrepancies in type are obvious physical or chemical differences which can be discovered by inspection or waste analysis (e.g., waste solvent substituted for waste acid).

(b) Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within fifteen days after receiving the waste, the owner or operator must immediately submit to the department a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(5) Reasons for not accepting dangerous waste shipments. The owner or operator may decide that a dangerous shipment should not be accepted by his facility.

(a) The following shall be acceptable reasons for denying receipt of a dangerous waste shipment:

(i) The facility is not capable of properly managing the type(s) of dangerous waste in the shipment;

(ii) There is a significant discrepancy (as described in subsection (4) of this section) between the shipment and the wastes listed on the manifest or shipping paper; or

(iii) The shipment has arrived in a condition which the owner or operator believes would present an unreasonable hazard to facility operations, or to facility personnel handling the dangerous waste(s) (including, but not limited to, leaking or damaged containers, and improperly labeled containers).

(b) The owner or operator may send the shipment on to the alternate facility designated on the manifest or shipping paper, or contact the generator to identify another facility capable of handling the waste and provide for its delivery to that other facility, unless, the containers are damaged to such an extent, or the dangerous waste is in such a condition as to present a hazard to the public health or the environment in the process of further transportation.

(c) If the dangerous waste shipment cannot leave the facility for the reasons described in (b) of this subsection, then the owner or operator shall take those actions described in the contingency plan, WAC 173-303-350 (3)(b). [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-370, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-370, filed 2/10/82. Formerly chapter 173-302 WAC.]

WAC 173-303-380 Facility recordkeeping. (1) Operating record. The owner or operator of a facility shall keep a written operating record at his facility. The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(a) A description of and the quantity of each dangerous waste received or managed on-site, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by subsection (2) of this section, recordkeeping instructions;

(b) The location of each dangerous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each dangerous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;

(c) Records and results of waste analyses required by WAC 173-303-300, General waste analysis;

(d) Summary reports and details of all incidents that require implementing the contingency plan, as specified in WAC 173-303-360 (2)(k);

(e) Records and results of inspections as required by WAC 173-303-320 (2)(d), General inspection (except such information need be kept only for three years);

(f) Monitoring, testing, or analytical data where required by 40 CFR Part 265 Subparts F through R for interim status facilities, and by WAC 173-303-630 through 173-303-670 for final status facilities;

(g) All closure and post-closure cost estimates required for the facility; and

(h) For off-site facilities, copies of notices to generators informing them that the facility has all appropriate permits, as required by WAC 173-303-290, Required notices.

(2) Recordkeeping instructions. This paragraph provides instructions for recording the portions of the operating record which are related to describing the types, quantities, and management of dangerous wastes at the facility. This information shall be kept in the operating record, as follows:

(a) Each dangerous waste received or managed shall be described by its common name and by its dangerous waste number(s) from WAC 173-303-080 through 173-303-104. Where a dangerous waste contains more than one process waste or waste constituent the waste description must include all applicable dangerous waste numbers. If the dangerous waste number is not listed

then the waste description shall include the process which generated the waste;

(b) The waste description shall include the waste's physical form (i.e., liquid, solid, sludge, or gas);

(c) The weight, or volume and density, of the dangerous waste shall be recorded, using one of the units of measure specified in Table 1, below;

TABLE 1

Unit of Measure	Symbol	Density
Pounds	P	
Short tons (2000 lbs)	T	
Gallons (U.S.)	G	P/G
Cubic yards	Y	T/Y
Kilograms	K	
Tonnes (1000 kg)	M	
Liters	L	K/L
Cubic meters	C	M/C

(d) And, the date(s) and method(s) of management for each dangerous waste received or managed (treated, recycled, stored, or disposed of) shall be recorded, using the handling code(s) specified in Table 2, below.

TABLE 2

1. Storage
   - S01 Container (barrel, drum, etc.)
   - S02 Tank
   - S03 Waste pile
   - S04 Surface impoundment
   - S05 Other (specify)

2. Treatment
   - (a) Thermal treatment
   - T06 Liquid injection incinerator
   - T07 Rotary kiln incinerator
   - T08 Fluidized bed incinerator
   - T09 Multiple hearth incinerator
   - T10 Infrared furnace incinerator
   - T11 Molten salt destructor
   - T12 Pyrolysis
   - T13 Wet air oxidation
   - T14 Calcination
   - T15 Microwave discharge
   - T16 Cement kiln
   - T17 Lime kiln
   - T18 Other (specify)
   - (b) Chemical treatment
   - T19 Absorption mound
   - T20 Absorption field
   - T21 Chemical fixation
   - T22 Chemical oxidation
   - T23 Chemical precipitation
   - T24 Chemical reduction
   - T25 Chlorination
   - T26 Chlorinolysis
   - T27 Cyanide destruction
   - T28 Degradation
   - T29 Detoxification
   - T30 Ion exchange
   - T31 Neutralization
   - T32 Ozonation
   - T33 Photolysis
   - T34 Other (specify)
   - (c) Physical treatment
   - (i) Separation of components
   - T35 Centrifugation
   - T36 Clarification
   - T37 Coagulation
   - T38 Decanting
   - T39 Encapsulation
   - T40 Filtration
   - T41 Flocculation
   - T42 Flotation
   - T43 Foaming
   - T44 Sedimentation
   - T45 Thickening
   - T46 Ultrafiltration
   - T47 Other (specify)
   - (ii) Removal of specific components
   - T48 Absorption-molecular sieve
   - T49 Activated carbon
   - T50 Blending
   - T51 Catalysis
   - T52 Crystallization
   - T53 Dialysis
   - T54 Distillation
   - T55 Electrodialysis
   - T56 Electrolysis
   - T57 Evaporation
   - T58 High gradient magnetic separation
   - T59 Leaching
   - T60 Liquid ion exchange
   - T61 Liquid-liquid extraction
   - T62 Reverse osmosis
   - T63 Solvent recovery
   - T64 Stripping
   - T65 Sand filter
   - T66 Other (specify)
   - (d) Biological treatment
   - T67 Activated sludge
   - T68 Aerobic lagoon
   - T69 Aerobic tank
   - T70 Anaerobic lagoon or tank
   - T71 Composting
   - T72 Septic tank
   - T73 Spray irrigation
   - T74 Thickening filter
   - T75 Trickling filter
   - T76 Waste stabilization pond
   - T77 Other (specify)
   - T78-79 (Reserved)

3. Disposal
   - D80 Underground injection
   - D81 Landfill
   - D82 Land treatment
   - D83 Ocean disposal
   - D84 Surface impoundment (to be closed as a landfill)
   - D85 Other (specify)

(3) Availability, retention and disposition of records.

(a) All facility records, including plans, required by this chapter must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the department who is designated by the director.

(b) The retention period for all facility records required under this chapter is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the director.

(c) A copy of records of waste disposal locations and quantities under this section must be submitted to the United States EPA regional administrator, the department, and the local land use and planning authority upon closure of the facility. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-380, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-380, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-380, filed 2/10/82. Formerly chapter 173-302 WAC.]

WAC 173-303-390 Facility reporting. The owner or operator of a facility is responsible for preparing and submitting the reports described in this section.

(1) Unmanifested waste reports. If a facility accepts any dangerous waste from an off-site source without an accompanying manifest or shipping paper, and if the waste is not excluded from the manifest requirements of this chapter 173-303 WAC, then the owner or operator must prepare and submit a single copy of a report to the department within fifteen days after receiving the waste. The report form and instructions in the Unmanifested Dangerous Waste Report - Form 6 (which may be obtained from the department) must be used for this report. The report must include at least the following information:

(a) The EPA/state identification number, name, and address of the facility;

(b) The date the facility received the waste;

(c) The EPA/state identification number, name, and address of the generator and the transporter, if available;

(d) A description and the quantity of each unmanifested dangerous waste the facility received;

(e) The method of management for each dangerous waste;

(f) The certification signed by the owner or operator of the facility or his authorized representative; and

(g) A brief explanation of why the waste was unmanifested, if known.

(2) Annual reports. The owner or operator of a facility that holds an active EPA/state identification number shall prepare and submit a single copy of an annual report to the department by March 1 of each year. The report form and instructions in the TSD Facility Annual Dangerous Waste Report - Form 5 (which may be obtained from the department) must be used for this report. In addition, any facility which ships dangerous waste off-site must comply with the annual reporting requirements of WAC 173-303-220. The annual report must cover facility activities during the previous calendar year and must include, but is not limited to the following information:

(a) The EPA/state identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA/state identification number of each dangerous waste generator from which the facility received a dangerous waste during the year. For imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each dangerous waste the facility received during the year. For off-site facilities, this information must be listed by EPA/state identification number of each generator;

(e) The method of treatment, storage, or disposal for each dangerous waste;

(f) The most recent closure cost estimate under WAC 173-303-620(3) (or 40 CFR 265.142 for interim status facilities), and for disposal facilities, the most recent post-closure cost estimate under WAC 173-303-620(5) (or 40 CFR 265.144 for interim status facilities); and

(g) The certification signed in accordance with the requirements of WAC 173-303-810(12).

(3) Additional reports. The owner or operator shall also report to the department releases of dangerous wastes, fires, and explosions as specified in WAC 173-303-360 (2)(k) and interim status groundwater monitoring data, as specified in 40 CFR 265.94 (a)(2) and (b)(2).

In addition, the owner or operator shall submit any other reports required by the department. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-390, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-390, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-390, filed 2/10/82.]

WAC 173-303-395 Other general requirements. (1) Precautions for ignitable, reactive, or incompatible wastes.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including, but not limited to, open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of this chapter 173-303 WAC, the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, must be conducted so that it does not:

(i) Generate extreme heat or pressure, fire or explosion, or violent reaction;

(ii) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

(iii) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(iv) Damage the structural integrity of the facility or device containing the waste; or

(v) Through other like means, threaten human health or the environment.

(c) When required to comply with (a) and (b) of this subsection, the owner or operator must document that compliance in the operating record required under WAC 173-303-380(1). This documentation may be based on references to published scientific or engineering literature, data from trial tests, waste analyses, or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

(d) At least yearly, the owner or operator shall inspect those areas of his facility where ignitable or reactive wastes are stored. This inspection shall be performed in the presence of a professional person who is familiar with the Uniform Fire Code, or in the presence of the local, state, or federal fire marshal. The owner or operator shall enter the following information in his inspection log or operating record as a result of this inspection:

(i) The date and time of the inspection;

(ii) The name of the professional inspector or fire marshal;

(iii) A notation of the observations made; and

(iv) Any remedial actions which were taken as a result of the inspection.

(2) Compliance with other environmental protection laws and regulations. In receiving, storing, handling, treating, processing, or disposing of dangerous wastes, the owner/operator shall design, maintain and operate his dangerous waste facility in compliance with all applicable federal, state and local laws and regulations (e.g., control of stormwater or sanitary water discharge, control of volatile air emissions, etc.).

(3) Asbestos dangerous waste disposal requirements. All asbestos containing waste material shall be disposed of at waste disposal sites which are operated in accordance with 40 CFR Part 61 Subpart M. Such sites will not need to comply with any other standards of chapter 173-303 WAC, if they comply with 40 CFR Part 61.

(4) Loading and unloading areas. TSD facilities which receive or ship manifested shipments of liquid dangerous waste for treatment, storage or disposal must provide for and use an area (or areas) for loading and unloading waste shipments. The loading and unloading area(s) must be designed, constructed, operated and maintained to:

(a) Contain spills and leaks that might occur during loading or unloading;

(b) Prevent release of dangerous waste or dangerous waste constituents to ground or surface waters;

(c) Contain wash waters (if any) resulting from the cleaning of contaminated transport vehicles and load/unload equipment; and

(d) Allow for removal, as soon as possible, of collected wastes resulting from spills, leaks and equipment cleaning (if any) in a manner which assures compliance with (b) of this subsection.

(5) Storage time limit for impoundments and piles.

(a) Except as provided in (b) or (c) of this subsection, dangerous waste shall not be stored in a surface impoundment or waste pile for more than five years after the waste was first placed in the impoundment or pile. For the purposes of this requirement, the five-year limit, for waste regulated under this chapter and being stored in impoundments or piles on the effective date of this requirement, will begin on August 1, 1984. The age of stored wastes must be determined on a monthly basis.

The owner/operator of a surface impoundment or waste pile used for storing dangerous waste must develop a written plan, to be kept at the facility, for complying with the five-year storage limit. The plan must describe the operating conditions, waste identification procedures (for keeping track of the age of the wastes), and a waste removal schedule, and at a minimum the plan must include the following elements:

(i) Methods for identifying the age of dangerous wastes placed in the impoundment or pile;

(ii) Where practical, procedures for segregating wastes of different ages. If the wastes cannot be practically segregated, then the age of all wastes placed in the impoundment or pile shall be deemed the same age as the oldest waste in the impoundment or pile;

(iii) A schedule for removing dangerous waste from the impoundment or pile, or for disposing of them in a timely manner to assure compliance with the five-year limit;

(iv) A description of the actions to be taken according to the schedule required by (a)(iii) of this subsection;

(v) Procedures for noting in the operating record required by WAC 173-303-380(1) that the requirements of this subsection have been satisfied; and

(vi) Such other requirements as the department specifies.

(b) If the owner/operator of a surface impoundment or waste pile can develop a written plan and schedule for developing and implementing a recycling or treatment process for the wastes stored in his impoundment or pile, then the department may grant an extension to the storage time limit required in (a) of this subsection. Such extension will be granted only once, will only apply to those dangerous wastes covered by the recycling or treatment plan and which are less than five years old on the date that the plan is approved by the department, and will not exceed five years: *Provided*, That on a case-by-case basis the department may grant an extension of longer than five years, but in no case will any extension be granted for longer than ten years, if the owner/operator of the impoundment or pile can demonstrate to the department's satisfaction that an extension of more than five years will not pose a threat to public health or

the environment, and is necessary because: Other treatment or recycling options of shorter durations are not available; the treatment or recycling plan developed by the owner/operator cannot be implemented within five years due to technological circumstances; or, such other reasons as are determined acceptable by the department. Until the department grants the extension by approving the recycling or treatment plan, the owner/operator must continue to comply with the requirements of (a) of this subsection. The recycling or treatment plan and schedule, at a minimum, must:

(i) Specify the wastes which will be recycled or treated in accordance with the plan;

(ii) Describe in detail the recycling or treatment which the owner/operator intends to perform. If the recycling or treatment will involve physical changes to the owner's/operator's facility, the plan must include descriptions of all necessary equipment, processes to be used, site plans, and maps to show any new structures, pipes, channels, waste handling areas, roads, etc.;

(iii) Discuss any permit actions (including issuance or modification) necessary under this chapter, and any other permits which will be required under other federal, state or local laws;

(iv) Establish a schedule for complying with the plan. The schedule must, at a minimum, cover:

(A) The rate at which wastes will be recycled or treated in order to comply with the extension granted by the department;

(B) Construction and equipment installation times as appropriate;

(C) Timing for complying with all required permit actions; and

(D) Such other elements as the department might require;

(v) Describe how the owner/operator will continue to comply with the requirements of (a) of this subsection for all wastes not specified in (b)(i) of this subsection;

(vi) Identify any future occurrences or situations which the owner/operator could reasonably expect to occur and which might cause him to fail to comply with his recycling or treatment plan. The owner/operator must also describe what actions he would take in the event that such occurrences or situations happen;

(vii) Be approved by the department. The plan shall not be implemented until it is approved by the department including, if necessary, issuance or modification of a facility permit as required by this chapter. Any extension granted by the department will begin on the date that the plan is approved, or the date five years after the effective date of this subsection, whichever is later; and

(viii) Include any other elements that the department might require.

(c) The owner/operator of a surface impoundment or waste pile is exempted from the requirements of (a) and (b) of this subsection if:

(i) The owner/operator of a surface impoundment or waste pile can demonstrate to the department's satisfaction that the impoundment or pile is not used primarily for storage, but that it is primarily used to actively and effectively neutralize, detoxify, or other wise treat dangerous waste; or

(ii) The owner/operator of a surface impoundment or waste pile can demonstrate to the department's satisfaction that dangerous waste is removed on a frequent basis (at least four times a year) for treatment, recycling or disposal, provided that the amount of waste removed during any five-year period must equal or exceed the amount of waste placed in the impoundment or pile during that five-year period. However, this exemption does not apply to waste removal which is being performed pursuant to a recycling or treatment plan developed and approved under (b) of this subsection; or

(iii) The owner/operator of a surface impoundment or waste pile has demonstrated, through his permit, closure plan or other instrument, that the impoundment or pile is being operated as a land disposal unit and that it will be closed as a landfill.

(6) Labeling for containers and tanks. The owner or operator must label containers and tanks in a manner which adequately identifies the major risk(s) associated with the contents for employees, emergency response personnel and the public (Note—If there is already a system in use that performs this function in accordance with local, state or federal regulations, then such system will be adequate). The owner or operator must ensure that labels are not obscured, removed, or otherwise unreadable in the course of inspection required under WAC 173-303-320. For tanks, the label or sign shall be legible at a distance of at least fifty feet. For containers, the owner or operator must affix labels upon transfer of dangerous waste from one container to another. The owner or operator must destroy or otherwise remove labels from the emptied container, unless the container will continue to be used for storing dangerous waste at the facility. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-395, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-395, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-395, filed 2/10/82.]

WAC 173-303-400 Interim status facility standards. (1) Purpose. The purpose of WAC 173-303-400 is to establish standards which define the acceptable management of dangerous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

(2) Applicability.

(a) The interim status standards apply to owners and operators of facilities which treat, store, transfer, and/or dispose of dangerous waste. For purposes of this section, interim status shall apply to all facilities which comply fully with the requirements for interim status under Section 3005(e) of the Federal Resource Conservation and Recovery Act or WAC 173-303-805. The interim status standards shall also apply to those owners and operators of facilities in existence on November 19, 1980, for RCRA wastes and those facilities in existence on August 9, 1982, for state only wastes who have failed

to provide the required notification pursuant to WAC 173-303-060 or failed to file Part A of the permit application pursuant to WAC 173-303-805 (4) and (5). Interim status shall end after final administrative disposition of the Part B permit application is completed, or may be terminated for the causes described in WAC 173-303-805(7).

(b) Interim status facilities must meet the interim status standards by November 19, 1980, except that:

(i) Interim status facilities which handle only state designated wastes (i.e., not designated by 40 CFR Part 261) must meet the interim status standards by August 9, 1982; and

(ii) Interim status facilities must comply with the additional state interim status requirements specified in subsection (3)(c)(ii), (iii) and (v), of this section, by August 9, 1982.

(c) The requirements of the interim status standards do not apply to:

(i) Persons disposing of dangerous waste subject to a permit issued under the Marine Protection, Research and Sanctuaries Act;

(ii) Persons disposing of dangerous waste by underground injection which is permitted under the Safe Drinking Water Act;

(iii) The owner or operator of a POTW who treats, stores, or disposes of dangerous wastes;

(iv) The owner or operator of a totally enclosed treatment facility or elementary neutralization or wastewater treatment units as defined in WAC 173-303-040, provided that he complies with the permit by rule requirements of WAC 173-303-802(5);

(v) Generators accumulating waste for less than ninety days except to the extent WAC 173-303-200 provides otherwise; and

(vi) The addition, by a generator, of absorbent material to waste in a container, or of waste to absorbent material in a container, provided that these actions occur at the time the waste is first placed in containers and the generator complies with WAC 173-303-200 (1)(b) and 173-303-395 (1)(a) and (b).

(d) The owner or operator of an interim status facility which manages moderate risk waste may comply with the special requirements selected under WAC 173-303-550 through 173-303-560 in lieu of the interim status facility standards of this section, but only for those moderate risk wastes which he manages and only after the owner or operator has requested and the department has issued a notice of interim status modification.

(3) Standards.

(a) Interim status standards shall be standards set forth by the Environmental Protection Agency in 40 CFR Part 265 Subparts F through R which are incorporated by reference into this regulation (including, by reference, any EPA requirements specified in those subparts which are not otherwise explicitly described in this chapter), and:

(i) WAC 173-303-280 through 173-303-440;

(ii) WAC 173-303-630(3), for containers. In addition, for container storage, the department may require that the storage area include secondary containment in accordance with WAC 173-303-630(7), if the department determines that there is a potential threat to public health or the environment due to the nature of the wastes being stored, or due to a history of spills or releases from stored containers. Any new container storage areas constructed or installed after September 30, 1986, must comply with the provisions of WAC 173-303-630(7).

(iii) WAC 173-303-640 (2)(c), for tanks; and

(iv) WAC 173-303-805.

(b) For purposes of applying the interim status standards of 40 CFR Part 265 Subparts F through R to the state of Washington facilities, the federal terms shall have (and in the case of the wording used in the financial instruments referenced in Subpart H of Part 265, shall be replaced with) the following state of Washington meanings:

(i) "Regional administrator" shall mean the "department";

(ii) "Hazardous" shall mean "dangerous"; and

(iii) "Compliance procedure" shall have the meaning set forth in WAC 173-303-040, Definitions.

(c) In addition to the changes described in (b) of this subsection, the following modifications shall be made to interim status standards of 40 CFR Part 265 Subparts F through R:

(i) The words "the effective date of these regulations" shall mean:

(A) November 19, 1980, for facilities which manage any wastes designated by 40 CFR Part 261; and

(B) March 12, 1982, for facilities which manage wastes designated only by WAC 173-303-080 through 173-303-103 and not designated by 40 CFR Part 261;

(ii) "Subpart N - landfills" shall have an additional section added which reads: "An owner/operator shall not landfill an organic carcinogen or an EHW, as defined by WAC 173-303-080 to 173-303-103, except at the EHW facility at Hanford";

(iii) "Subpart R - underground injection" shall have an additional section which reads: "Owners and operators of wells are prohibited from disposing of EHW or an organic carcinogen designated under WAC 173-303-080 through 173-303-103";

(iv) "Subpart M - land treatment," section 265.273(b) shall be modified to replace the words "Part 261, Subpart D of this chapter" with "WAC 173-303-080";

(v) "Subpart F - ground water monitoring," section 265.91(c) shall include the requirement that: "Groundwater monitoring wells shall be designed, constructed, and operated so as to prevent groundwater contamination. Chapter 173-160 WAC may be used as guidance in the installation of wells"; and

(vi) "Subpart H - financial requirements" shall have an additional section which reads: "Any owner or operator who can provide financial assurances and instruments which satisfy the requirements of WAC 173-303-620 will be deemed to be in compliance with 40 CFR Part 265 Subpart H." [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-400, filed 6/3/86; 84-09-088 (Order DE 83-36), §

173-303-400, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-400, filed 2/10/82.]

WAC 173-303-420 Siting standards. (1) Purpose. This section provides criteria for the siting of dangerous waste facilities. The criteria are to be viewed as standards which a facility owner/operator shall meet in siting his facility.

(2) Applicability. These siting standards will apply to all facilities which require a permit under WAC 173-303-805 and 173-303-806, or as otherwise limited in each of the applicable paragraphs of this section.

(3) Earthquake fault criteria.

(a) Active portions of new TSD facilities will not be located within 200 feet of a fault which has had displacement in Holocene times. For facilities managing moderate risk waste only, engineering efforts, as approved by the department, may be substituted for the 200-foot buffer zone.

(b) As used in (a) of this subsection:

(i) "Fault" means a fracture along which rocks on one side have been displaced with respect to those on the other side;

(ii) "Displacement" means the relative movement of any two sides of a fault measured in any direction; and

(iii) "Holocene" means the most recent epoch of the Quarternary period, extending from the end of the Pleistocene to the present.

(c) Facilities which are located in counties other than those listed below are assumed to be in compliance with this subsection.

Chelan	Grant	Lewis	Skagit
Clallam	Grays Harbor	Mason	Skamania
Clark	Jefferson	Okanogan	Snohomish
Cowlitz	King	Pacific	Thurston
Douglas	Kitsap	Pierce	Wahkiakum
Ferry	Kittitas	San Juan	Whatcom
			Yakima

(4) Floodplain criteria.

(a) A facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of any dangerous waste by a 100-year flood, unless, in the case of facilities which manage DW only, the owner or operator has included in his contingency plan (WAC 173-303-350) procedures which will cause the waste to be removed safely, before floodwaters can reach the facility, to a location where the wastes will not be vulnerable to floodwaters. The location to which wastes will be removed must be a facility permitted according to this chapter.

(b) For facilities which manage EHW, a facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of any EHW by a 100-year flood. Contingency procedures for removal of EHW will not be deemed equivalent to engineered flood proofing.

(c) As used in (a) and (b) of this subsection:

(i) "100-year floodplain" means any land area which is subject to one percent or greater chance of flooding in any given year from any source;

(ii) "Washout" means the movement of dangerous waste from the active portion of the facility as a result of flooding; and

(iii) "100-year flood" means a flood that has a one percent chance of being equalled or exceeded in any given year.

(5) The siting of facilities in areas under the jurisdiction of the 1971 Shoreline Management Act (chapter 90.58 RCW).

(a) Areas defined as "wetlands" under RCW 90.58-.030 (2)(f) (those areas under jurisdiction of the Shoreline Management Act) shall not be considered or used for the disposal of dangerous waste.

(b) Dangerous waste storage and treatment facilities, where such facilities have either historically located in areas under jurisdiction of the Shoreline Management Act, or where such facilities require a waterfront or harbor area location, shall be limited to those locations where the local shoreline management master program permits industrial, navigation, manufacturing, or similar activities. Areas classified natural, conservancy, rural, or residential shall not be considered for the location of a dangerous waste facility.

(6) Sole source aquifer criteria. No new facility shall dispose of dangerous waste over a sole source aquifer designated pursuant to section 1424(e) of the Safe Drinking Water Act (Public Law 93-523). [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-420, filed 4/18/84.]

WAC 173-303-430 Performance standards. (1) Purpose. This section provides general performance standards for designing, constructing, operating, and maintaining dangerous waste facilities.

(2) Applicability. This section applies to all dangerous waste facilities permitted under WAC 173-303-800 through 173-303-840. These general performance standards shall be used to determine whether more stringent facility standards should be applied than those spelled out in WAC 173-303-280 through 173-303-400 and 173-303-600 through 173-303-670.

(3) Performance standards. Unless authorized by state, local, or federal laws, or unless otherwise authorized in this regulation, the owner/operator shall design, construct, operate, or maintain a dangerous waste facility that to the maximum extent practical given the limits of technology prevents:

(a) Degradation of ground water quality;

(b) Degradation of air quality by open burning or other activities;

(c) Degradation of surface water quality;

(d) Destruction or impairment of flora and fauna outside the active portion of the facility;

(e) Excessive noise;

(f) Conditions that constitute a negative aesthetic impact for the public using rights of ways, or public lands, or for landowners of adjacent properties;

(g) Unstable hillsides or soils as a result of trenches, impoundments, excavations, etc.;

(h) The use of processes that do not treat, detoxify, recycle, reclaim, and recover waste material to the extent economically feasible; and

(i) Endangerment of the health of employees, or the public near the facility. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-430, filed 4/18/84.]

WAC 173-303-440 Buffer monitoring zones. (1) Buffer zones.

(a) The owner/operator of a dangerous waste facility which treats or stores ignitable or reactive waste, except for those reactive wastes with buffer zones specified in (b) of this subsection in covered tanks must treat or store his ignitable waste in a manner equivalent with the National Fire Protection Association's buffer zone requirements for tanks, contained in Tables 2-1 through 2-6 of *The Flammable and Combustible Liquids Code-1981.*

(b) The owner/operator of a dangerous waste facility which treats or stores reactive waste exhibiting a characteristic specified in WAC 173-303-090 (7)(a)(vi), (vii) or (viii) must provide a buffer zone for his reactive waste equivalent with the Uniform Fire Code's *American Table of Distances for Storage of Explosives*, Table 77-201, 1979 edition. Where this requirement conflicts with the buffer zone of (a) of this subsection, the larger of the two buffer zones determined under (a) and (b) of this subsection must be used.

(c) Within the practical limits of the best available management technology, the owner/operator of a new dangerous waste impoundment, pile, landfarm, or landfill should attempt to locate his facility so that the travel time (as defined in WAC 173-303-040) from the active portion of the facility to the nearest downstream well or surface water used for drinking purposes is at least:

(i) Three years, for DW; and

(ii) Ten years, for EHW.

(2) Monitoring zones.

(a) The owner/operator of a new dangerous waste facility handling DW only may at his discretion provide a monitoring zone around surface impoundment, waste pile, land treatment, and landfill areas as follows:

$$D = \frac{wv\ (ft)}{N}$$

Where

D = the minimum width of the monitoring zone
w = 3, a constant
v = velocity of surface soil migration, ft/yr
N = number of times the surface soil is sampled at one spot in a year.

Samples shall be taken a distance of

$$S = \frac{D\ (ft)}{w}$$ from the active portion of the facility

Where

D = the monitoring zone width in feet and
w = 3.

(b) The same monitoring zone determinations may be made for new facilities handling EHW, except that the value W = 10 shall be used.

(c) Additional information and assistance on choosing monitoring zones is available from the department. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-440, filed 4/18/84.]

WAC 173-303-500 Recycling requirements for state-only dangerous waste. (1) Applicability. This section applies to the recycling of state-only dangerous waste that are not regulated as hazardous wastes (defined in WAC 173-303-040(39)) by EPA.

(2) Standards.

(a) If state-only dangerous wastes are recycled in any of the ways described in WAC 173-303-505 through 173-303-525, then such recycling is subject to the respective requirements of WAC 173-303-505 through 173-303-525, except as provided in (c) of this subsection.

(b) If state-only dangerous wastes are recycled in any way not specifically described in WAC 173-303-505 through 173-303-525, then such recycling is subject to the requirements of WAC 173-303-120(4), except as provided in (c) of this subsection.

(c) Recyclers who receive state-only dangerous wastes from off-site and who store the wastes in containers or tanks may, in lieu of the provisions for storing dangerous wastes prior to recycling, comply with:

(i) WAC 173-303-060;

(ii) WAC 173-303-370 (if the dangerous waste received must be accompanied by a manifest); and

(iii) The following requirements, provided that the dangerous waste is recycled within ninety days of the date it is received by the recycler:

(A) WAC 173-303-330 through 173-303-360;

(B) WAC 173-303-630 (2), (3), (4), (5), (6), (8) and (9), for containers;

(C) WAC 173-303-640 (3), (4), (5), (6) and (7), for tanks; and

(D) WAC 173-303-630(7) for new container areas installed after September 30, 1986, and WAC 173-303-640(2) for new tanks installed after September 30, 1986.

(d) The department may require a recycler who is storing his waste under the provisions of (c) of this subsection to comply with the provisions for storing dangerous waste prior to recycling specified in WAC 173-303-505 through 173-303-525 and 173-303-120(4) if:

(i) The recycler fails to comply with the requirements of (c) of this subsection; or

(ii) The department determines, on a case-by-case basis, that the requirements of (c) of this subsection do not adequately protect public health or the environment.

(3) Relief from standards. The owner/operator of a facility recycling dangerous wastes under the provisions of this section may ask the department to provide relief from any of the applicable requirements of this section. Requests for relief must be submitted as described in (a) of this subsection. Requests for relief will be approved or denied as described in (b) of this subsection.

(a) A request for relief must be submitted by the recycler to the department in writing and must describe the standards from which the recycler is seeking relief. The request must include:

(i) The facility name, EPA/state identification number, address, telephone number, and a contact person at the facility;

(ii) The waste(s) managed at the facility and the type(s) recycling;

(iii) The specific standards from which the owner/operator seeks relief;

(iv) A description, for each standard, demonstrating:

(A) Why the owner/operator believes the standard to be unnecessary;

(B) How public health and the environment will continue to be protected if the standard is not applied to the facility; and

(C) Any evidence supporting the contention that public health and the environment will be adequately protected if the standard is not applied (e.g., test data, diagrams, experiences at similar facilities, records, reports, etc.); and

(v) The following certification, signed and dated by a person who would be authorized to sign a report under WAC 173-303-810 (12)(b):

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this request and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The department may ask for any additional information it deems necessary, and will not consider approval of the owner's/operator's request until all necessary information has been submitted. Failure to provide any of the information required may result in the department's denying the owner's/operator's request.

(b) The department will review any requests submitted pursuant to (a) of this subsection, and based on the adequacy of the information provided in the request will approve or deny all or any part of the request. The department will notify the recycler of its decision in writing. If the department decides to approve all or part of the request and the recycler agrees with the department's decision, then the department will proceed to grant the approval as described below. No approval shall be effective until the procedures described below have been completed.

(i) For facilities which are required to have a final facility permit, the department shall follow the procedures for issuing (or, for facilities which already have a final facility permit, the procedures for modifying) a final facility permit, as described in WAC 173-303-806. The new or modified final facility permit shall include the standards the owner/operator must meet.

(ii) For all other types of recycling facilities, the department shall issue a notice of modification stating what standards will be applied. Before issuing the notice of modification, the department shall provide public notice of its intent, shall allow thirty days for public comment, and shall hold a public hearing if there is a significant degree of public interest or there is written notice of opposition and the department receives a request for a hearing during the comment period. Notice of a public hearing shall be provided at least fifteen days in advance, and the public comment period shall be extended to include the date of the hearing if it will occur after the initial thirty-day comment period. Within fifteen days of the end of the public comment period the department shall, based on comments received, issue, modify and issue, or deny the notice of modification.

(c) Failure to comply with the conditions and standards as stated in the permit or notice of modification issued under (b) of this subsection shall form a basis for modifying or revoking the permit or notice of modification. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-500, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-500, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-500, filed 2/10/82.]

WAC 173-303-505 Special requirements for recyclable materials used in a manner constituting disposal. (1) Applicability.

(a) This section applies to recyclable materials that are applied to or placed on the land:

(i) Without mixing with any other substance(s); or

(ii) After mixing with any other substance(s), unless the recyclable material undergoes a chemical reaction so as to become inseparable from the other substance(s) by physical means; or

(iii) After combination with any other substance(s) if the resulting combined material is not produced for the general public's use. These materials will be referred to as "materials used in a manner that constitutes disposal."

(b) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the product so as to become inseparable by physical means. Commercial fertilizers that are produced for the general public's use that contain recyclable materials also are not presently subject to regulation.

(2) Recyclable materials used in a manner that constitutes disposal are dangerous wastes and are subject to the following requirements:

(a) For generators, WAC 173-303-170 through 173-303-230;

(b) For transporters, WAC 173-303-240 through 173-303-270; and

(c) For facilities that store or use dangerous wastes in a manner constituting disposal, the applicable requirements of WAC 173-303-280 through 173-303-840 (except that users of such products are not subject to these standards if the products meet the requirements of subsection (1)(b) of this section). [Statutory Authority:

Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-505, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-505, filed 4/18/84.]

WAC 173-303-510 Special requirements for dangerous wastes burned for energy recovery. (1) Applicability.

(a) This section applies to dangerous wastes that are burned for energy recovery in any boiler or industrial furnace that is not regulated under Subpart O of 40 CFR Part 265 or WAC 173-303-670, except as provided by (b) of this subsection. Such dangerous wastes burned for energy recovery are termed "dangerous waste fuel." Fuel produced from dangerous waste by processing, blending, or other treatment is also dangerous waste fuel. (These regulations do not apply, however, to gas recovered from dangerous waste management activities when such gas is burned for energy recovery.)

(b) The following dangerous wastes are not subject to regulation under this section:

(i) Used oil burned for energy recovery if it is a dangerous waste because it:

(A) Exhibits a characteristic of dangerous waste identified in WAC 173-303-090; or

(B) Is designated as DW only through the criteria of WAC 173-303-101 through 173-303-103; or

(C) Is a dangerous waste designated solely as W001.

Such used oil is subject to regulation under WAC 173-303-515 rather than this section.

Note: Used oil burned for energy recovery containing a listed waste (unless such listed waste is only state source W001) or a waste designated as EHW through the criteria of WAC 173-303-101 through 173-303-103 is subject to this section.

(ii) (Reserved.)

(2) Prohibitions.

(a) A person may market dangerous waste fuel only:

(i) To persons who have notified the department of their dangerous waste fuel activities under WAC 173-303-060 and have an EPA/state identification number; and

(ii) If the fuel is burned, to persons who burn the fuel in boilers or industrial furnaces identified in (b) of this subsection.

(b) Dangerous waste fuel may be burned for energy recovery in only the following devices;

(i) Industrial furnaces identified in WAC 173-303-040;

(ii) Boilers, as defined in WAC 173-303-040, that are identified as follows:

(A) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or

(B) Utility boilers used to produce electric power, steam, or heated or cooled air or other gases or fluids for sale.

(c) No fuel which contains any dangerous waste may be burned in any cement kiln which is located within the boundaries of any incorporated municipality with a population greater than five hundred thousand (based on the most recent census statistics) unless such kiln fully complies with regulations under this chapter that are applicable to incinerators.

(3) Standards applicable to generators of dangerous waste fuel.

(a) Generators of dangerous waste that is used as a fuel or used to produce a fuel are subject to WAC 173-303-170 through 173-303-230.

(b) Generators who market dangerous waste fuel to a burner also are subject to subsection (5) of this section.

(c) Generators who are burners also are subject to subsection (6) of this section.

(4) Standards applicable to transporters of dangerous waste fuel. Transporters of dangerous waste fuel (and dangerous waste that is used to produce a fuel) are subject to the requirements of WAC 173-303-240 through 173-303-270.

(5) Standards applicable to marketers of dangerous waste fuel.

Persons who market dangerous waste fuel are termed "marketers," and are subject to the following requirements. Marketers include generators who market dangerous waste fuel directly to a burner, persons who receive dangerous waste from generators and produce, process, or blend dangerous waste fuel from these dangerous wastes, and persons who distribute but do not process or blend dangerous waste fuel.

(a) Prohibitions. The prohibitions under subsection (2) of this section;

(b) Notification. Notification requirements under WAC 173-303-060 for dangerous waste fuel activities. Even if a marketer has previously notified the department of his dangerous waste management activities and obtained an EPA/state identification number, he must renotify to identify his dangerous waste fuel activities.

(c) Storage.

(i) For short term accumulation by generators who are marketers of dangerous waste fuel, the applicable provisions of WAC 173-303-200 or 173-303-201;

(ii) For all marketers who store dangerous waste fuel, the applicable storage provisions of:

(A) WAC 173-303-280 through 173-303-395;

(B) WAC 173-303-420 through 173-303-440;

(C) WAC 173-303-800 through 173-303-840;

(iii) For marketers with interim status permits who store dangerous waste fuel, the applicable storage provisions of WAC 173-303-400 including Subparts F through L of 40 CFR Part 265;

(iv) For marketers with final status permits who store dangerous waste fuel, the applicable storage provisions of:

(A) WAC 173-303-600 through 173-303-650; and

(B) WAC 173-303-660.

(d) Off-site shipment. The standards for generators in WAC 173-303-170 through 173-303-230 when a marketer initiates a shipment of dangerous waste fuel;

(e) Required notices.

(i) Before a marketer initiates the first shipment of dangerous waste fuel to a burner or another marketer,

he must obtain a one-time written and signed notice from the burner or marketer certifying that:

(A) The burner or marketer has notified the department under WAC 173-303-060 and identified his waste-as-fuel activities; and

(B) If the recipient is a burner, the burner will burn the dangerous waste fuel only in an industrial furnace or boiler identified in subsection (2)(b) of this section.

(ii) Before a marketer accepts the first shipment of dangerous waste fuel from another marketer, he must provide the other marketer with a one-time written and signed certification that he has notified the department under WAC 173-303-060 and identified his dangerous waste fuel activities; and

(f) Recordkeeping. In addition to the applicable recordkeeping requirements of WAC 173-303-210 and 173-303-380, a marketer must keep a copy of each certification notice he receives or sends for three years from the date he last engages in a dangerous waste fuel marketing transaction with the person who sends or receives the certification notice.

(6) Standards applicable to burners of dangerous waste fuel.

Owners and operators of industrial furnaces and boilers identified in subsection (2)(b) of this section that burn dangerous fuel are "burners" and are subject to the following requirements:

(a) Prohibitions. The prohibitions under subsection (2)(b) of this section;

(b) Notification. Notification requirements under WAC 173-303-060 for dangerous waste fuel activities. Even if a burner has previously notified the department of his dangerous waste management activities and obtained an EPA/state identification number, he must renotify to identify his dangerous waste fuel activities.

(c) Storage.

(i) For short term accumulation by generators who burn their dangerous waste fuel on site, the applicable provisions of WAC 173-303-200 or 173-303-201.

(ii) For all burners who store dangerous waste fuel, the applicable provisions of:

(A) WAC 173-303-280 through 173-303-395;

(B) WAC 173-303-420 through 173-303-440; and

(C) WAC 173-303-800 through 173-303-840;

(iii) For burners under interim status permits, the applicable storage provisions of WAC 173-303-400 including Subparts F through L of 40 CFR Part 265;

(iv) For burners with final facility permits, the applicable storage provisions of:

(A) WAC 173-303-600 through 173-303-650; and

(B) WAC 173-303-660.

(d) Required notices. Before a burner accepts the first shipment of dangerous waste fuel from a marketer, he must provide the marketer a one-time written and signed notice certifying that:

(i) He has notified the department under WAC 173-303-060 and identified his waste-as-fuel activities; and

(ii) He will burn the fuel only in a boiler or furnace identified in subsection (2)(b) of this section.

(e) Recordkeeping. In addition to the applicable recordkeeping requirements of WAC 173-303-380, a burner must keep a copy of each certification notice that he sends to a marketer for three years from the date he last receives dangerous waste fuel from that marketer.

(f) Local requirements. Any person who burns dangerous waste for energy recovery must comply with air emission requirements of the local air pollution control authority (or department of ecology if no local authority with jurisdiction exists). [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-510, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-510, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-510, filed 2/10/82.]

WAC 173-303-515 Special requirements for used oil burned for energy recovery. (1) Applicability.

(a) This section applies to used oil that is burned for energy recovery in any boiler or industrial furnace that is not regulated under Subpart O of 40 CFR Part 265 or WAC 173-303-670, if such used oil:

(i) Exhibits any characteristic of a dangerous waste identified in WAC 173-303-090; or

(ii) Is designated as DW solely through WAC 173-303-084 or 173-303-101 through 173-303-103; or

(iii) Is designated solely as W001; or

(iv) Contains dangerous waste generated only by a person subject to the special requirements for small quantity generators under WAC 173-303-070(8).

(b)(i) This section does not apply to used oil burned for energy recovery that is mixed with a listed waste (except as provided in (a) (iii) and (iv) of this subsection) or that is designated as EHW through WAC 173-303-084 or 173-303-101 through 173-303-103. Such used oil is subject to the requirements of WAC 173-303-510.

(ii) Used oil containing more than 1000 ppm of total halogens is presumed to be a dangerous waste because it has been mixed with halogenated dangerous waste listed in WAC 173-303-9903 or 173-303-9904. Such dangerous wastes are subject to the requirements of WAC 173-303-510. Persons may rebut this presumption by demonstrating that the used oil does not contain dangerous waste (for example, by showing that the used oil does not contain significant concentrations of halogenated dangerous constituents listed in WAC 173-303-9905).

(iii) This section does not apply to used oil burned for energy recovery in marine or diesel engines, except that marketers of such used oil are subject to the notification requirements of WAC 173-303-060, and the presumptive test of (b)(ii) of this subsection.

(c) If a used oil subject to this section does not exceed any of the specifications of Table 1, it is subject only to the analysis and recordkeeping requirements under subsection (4)(b)(i) and (vi) of this section; otherwise, it is subject to all applicable provisions of this section.

(d) For the purposes of this chapter:

(i) "Used oil" means any oil that has been refined from crude oil, used, and, as a result of such use, is contaminated by physical or chemical impurities;

(ii) Used oil fuel includes any fuel produced from used oil by processing, blending, or other treatments;

(iii) Used oil fuel that exceeds any specification level (described in Table 1) is termed "off-specification used oil fuel."

TABLE 1
USED OIL EXCEEDING ANY SPECIFICATION LEVEL IS SUBJECT TO THIS SECTION WHEN BURNED FOR ENERGY RECOVERY[a]

Constituent/property	Allowable level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash Point	100° F minimum
Total Halogens	4,000 ppm maximum
Polychlorinated Biphenyls	2 ppm maximum[b]

[a]The specification does not apply to used oil fuel mixed with a dangerous waste other than small quantity generator dangerous waste.

[b]Used oil containing more than 1,000 ppm total halogens is presumed to be a dangerous waste under the rebuttable presumption provided under WAC 173-303-515 (1)(b)(ii). Such used oil is subject to WAC 173-303-510 rather than this section when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

(2) Prohibitions.

(a) A person may market off-specification used oil for energy recovery only:

(i) To burners or other marketers who have notified the department of their used oil management activities stating the location and general description of such activities, and who have an EPA/state identification number; and

(ii) To burners who burn the used oil in an industrial furnace or boiler identified in (b) of this subsection.

(b) Off-specification used oil may be burned for energy recovery in only the following devices:

(i) Industrial furnaces identified in WAC 173-303-040; or

(ii) Boilers, as defined in WAC 173-303-040 that are identified as follows:

(A) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(B) Utility boilers used to produce electric power, steam, or heated or cooled air or other gases or fluids for sale; or

(C) Used oil-fired space heaters provided that:

(I) The heater burns only used oil that the owner or operator generates or used oil received from do-it-yourself oil changers who generate used oil as household waste;

(II) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and

(III) The combustion gases from the heater are vented to the ambient air.

(3) Standards applicable to generators of used oil burned for energy recovery.

(a) Except as provided in (b) and (c) of this subsection generators of used oil are not subject to this section.

(b) Generators who market used oil directly to a burner are subject to subsection (4) of this section.

(c) Generators who burn used oil are subject to subsection (5) of this section.

(4) Standards applicable to marketers of used oil burned for energy recovery.

(a) Persons who market used oil fuel are termed "marketers." However, the following persons are not marketers subject to this section:

(i) Used oil generators, and collectors who transport used oil received only from generators, unless the generator or collector markets the used oil directly to a person who burns it for energy recovery. However, persons who burn some used oil fuel for purposes of processing or other treatment to produce used oil fuel for marketing are considered to be burning incidentally to processing. Thus, generators and collectors who market to such incidental burners are not marketers subject to this section;

(ii) Persons who market only used oil fuel that meets the specification under Table 1 of subsection (1) of this section and who are not the first person to claim the oil meets the specification (i.e., marketers who do not receive used oil from generators or initial transporters and marketers who neither receive nor market off-specification used oil fuel).

(b) Marketers are subject to the following requirements:

(i) Analysis of used oil fuel. Used oil fuel is subject to regulation under this section unless the marketer obtains analyses or other information documenting that the used oil fuel meets the specification provided under Table 1 of subsection (1) of this section.

(ii) Prohibitions. The prohibitions under subsection (2)(a) of this section;

(iii) Notification. Notification to the department stating the location and general description of used oil management activities. Even if a marketer has previously notified the department of his dangerous waste management activities under WAC 173-303-060 and obtained an EPA/state identification number, he must renotify to identify his used oil management activities.

(iv) Invoice system. When a marketer initiates a shipment of off-specification used oil, he must prepare and send the receiving facility an invoice containing the following information:

(A) An invoice number;

(B) His own EPA/state identification number and the EPA/state identification number of the receiving facility;

(C) The names and addresses of the shipping and receiving facilities;

(D) The quantity of off-specification used oil to be delivered;

(E) The date(s) of shipment or delivery; and

(F) The following statement: "This used oil subject to Washington state department of ecology regulation under WAC 173-303-515;

Note—Used oil that meets the definition of combustible liquid (flash point below 200° F but at or greater than 100° F) or flammable liquid (flash point below 100° F) is subject to Department of Transportation Hazardous Materials Regulations at 49 CFR Parts 100-177.

(v) Required notices.

(A) Before a marketer initiates the first shipment of off-specification used oil to a burner or other marketer, he must obtain a one-time written and signed notice from the burner or marketer certifying that:

(I) The burner or marketer has notified the department stating the location and general description of his used oil management activities; and

(II) If the recipient is a burner, the burner will burn the off-specification used oil only in an industrial furnace or boiler identified in subsection (2)(b) of this section; and

(B) Before a marketer accepts the first shipment of off-specification used oil from another marketer subject to the requirements of this subsection, he must provide the marketer with a one-time written and signed notice certifying that he has notified the department of his used oil management activities; and

(vi) Recordkeeping.

(A) Used oil fuel that meets the specification. A marketer who first claims under (b)(i) of this subsection that used oil fuel meets the specification must keep copies of analysis (or other information used to make the determination) of used oil for three years. Such marketers must also record in an operating log and keep for three years the following information on each shipment of used oil fuel that meets the specification. Such used oil fuel is not subject to further regulation, unless it is subsequently mixed with dangerous waste or unless it is mixed with used oil so that it no longer meets the specification.

(I) The name and address of the facility receiving the shipment;

(II) The quantity of used oil fuel delivered;

(III) The date of shipment or delivery; and

(IV) A cross-reference to the record of used oil analysis (or other information used to make the determination that the oil meets the specification) required under (b)(vi)(A) of this subsection.

(B) Off-specification used oil fuel. A marketer who receives or initiates an invoice under the requirements of this section must keep a copy of each invoice for three years from the date the invoice is received or prepared. In addition, a marketer must keep a copy of each certification notice that he receives or sends for three years from the date he last engages in an off-specification used oil fuel marketing transaction with the person who sends or receives the certification notice.

(5) Standards applicable to burners of used oil burned for energy recovery.

Owners and operators of facilities that burn used oil fuel are "burners" and are subject to the following requirements:

(a) Prohibition. The prohibition under subsection (2)(b) of this section;

(b) Notification. Burners of off-specification used oil fuel must notify the department stating the location and general description of used oil management activities, except that owners and operators of used oil-fired space heaters that burn used oil fuel under the provisions of subsection (2)(b)(ii) of this section are exempt from these notification requirements. Even if a burner has previously notified the department of his dangerous waste management activities under WAC 173-303-060 and obtained an identification number, he must renotify to identify his used oil management activities.

(c) Required notices. Before a burner accepts the first shipment of off-specification used oil fuel from a marketer, he must provide the marketer a one-time written and signed notice certifying that:

(i) He has notified the department stating the location and general description of his used oil management activities; and

(ii) He will burn the used oil only in an industrial furnace or boiler identified in subsection (2)(b) of this section; and

(d) Used oil fuel analysis.

(i) Used oil fuel burned by the generator is subject to regulation under this section unless the burner obtains analysis (or other information) documenting that the used oil meets the specification provided under Table 1 of subsection (1) of this section.

(ii) Burners who treat off-specification used oil fuel by processing, blending, or other treatment to meet the specification provided under Table 1 of subsection (1) of this section must obtain analyses (or other information) documenting that the used oil meets the specification.

(e) Recordkeeping. A burner who receives an invoice under the requirements of this section must keep a copy of each invoice for three years from the date the invoice is received. Burners must also keep for three years copies of analyses of used oil fuel as may be required by (d) of this subsection. In addition, he must keep a copy of each certification notice that he sends to a marketer for three years from the date he last receives off-specification used oil from that marketer.

(f) Local requirements. Any person who burns used oil for energy recovery, except for burning in used oil-fired space heaters that meet the provisions of subsection (2)(b)(ii) of this section, must comply with the air emission requirements of the local air pollution control authority (or department of ecology if no local authority with jurisdiction exists). [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-515, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-515, filed 6/27/84.]

WAC 173-303-520 Special requirements for reclaiming spent lead acid battery wastes. This section applies to persons who reclaim spent lead-acid batteries that are recyclable materials ("spent batteries").

(1) Persons who generate, transport, or who store spent batteries but do not reclaim them are subject only to the requirements of WAC 173-303-050, 173-303-145 and 173-303-960 if such spent batteries are going to a battery reclaimer.

(2) Owners and operators of battery reclaiming facilities that store spent lead acid batteries prior to reclaiming them are subject to the following requirements:

(a) For all reclaimers, the applicable storage provisions of:

(i) WAC 173-303-280 (2) and (3);

(ii) WAC 173-303-290;

(iii) WAC 173-303-310 through 173-303-360;

(iv) WAC 173-303-380;

(v) WAC 173-303-390 (2) and (3);

(vi) WAC 173-303-395;

(vii) WAC 173-303-420 through 173-303-440; and

(viii) WAC 173-303-800 through 173-303-840.

(b) For reclaimers with interim status permits, the applicable storage provisions of WAC 173-303-400 including Subparts F through L of 40 CFR Part 265;

(c) For reclaimers with final facility permits, the applicable storage provisions of:

(i) WAC 173-303-600 through 173-303-650; and

(ii) WAC 173-303-660. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-520, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-520, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-520, filed 2/10/82.]

WAC 173-303-525 Special requirements for recyclable material utilized for precious metal recovery. (1) Applicability and requirements.

(a) This section applies to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, paladium, irridium, osmium, rhodium, ruthenium, or any combination of these.

(b) Persons who generate, transport, or store recyclable materials that are regulated under this section are subject to the following requirements:

(i) Notification requirements under WAC 173-303-060;

(ii) WAC 173-303-180 (for generators), 173-303-250 (for transporters), and 173-303-370 (for persons who store).

(c) Persons who store recycled materials that are regulated under this section must keep the following records to document that they are not accumulating these materials speculatively (as defined in WAC 173-303-016 (5)(d)(ii));

(i) Records showing the volume of these materials stored at the beginning of the calendar year;

(ii) The amount of these materials generated or received during the calendar year; and

(iii) The amount of materials remaining at the end of the calendar year.

(d) Recyclable materials that are regulated under this section that are accumulated speculatively (as defined in WAC 173-303-016 (5)(d)(ii)) are dangerous wastes and are subject to all applicable provisions of this chapter.

(2) Additional regulation of recyclable materials utilized for precious metal recovery on a case-by-case basis.

The department may decide on a case-by-case basis that persons accumulating or storing recyclable materials utilized for precious metal recovery should be regulated under WAC 173-303-120(4). The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the department will consider the following factors:

(a) The types of materials accumulated or stored and the amounts accumulated or stored;

(b) The method of accumulation or storage;

(c) The length of time the materials have been accumulated or stored before being reclaimed;

(d) Whether any contaminants are being released into the environment, or are likely to be so released; and

(e) Other relevant factors.

The procedures for this decision are set forth in subsection (3) of this section.

(3) Procedures for case-by-case regulation of recyclable materials utilized for precious metal recovery.

The department will use the following procedures when determining whether to regulate recyclable materials utilized for precious metal recovery under the provisions of WAC 173-303-120(4), rather than under the provisions of subsection (1) of this section.

(a) If a generator is accumulating the waste, the department will issue a notice setting forth the factual basis for the decision and stating that the person must comply with the applicable requirements of WAC 173-303-170 and 173-303-190 through 173-303-230. The notice will become final within thirty days, unless the person served requests a public hearing to challenge the decision. Upon receiving such a request, the department will hold a public hearing. The department will provide notice of the hearing to the public and allow public participation at the hearing. The department will issue a final order after the hearing stating whether or not compliance with WAC 173-303-170 and 173-303-190 through 173-303-230 is required. The order becomes effective thirty days after service of the decision unless the department specifies a later date or unless review by the department is requested. The order may be appealed to the pollution control hearings board, in accordance with WAC 173-303-845, by any person who participated in the public hearing.

(b) If the person is accumulating the recyclable material as a storage facility, the notice will state that the

person must obtain a permit in accordance with all applicable provisions of WAC 173-303-800 through 173-303-840. The owner or operator of the facility must apply for a permit within no less than sixty days and no more than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the department's decision he may do so in his permit application, in a public hearing held on the draft permit, or in comments filed on the draft permit or on the notice of intent to deny the permit. The fact sheet accompanying the permit will specify the reasons for the department's determination. The question of whether the department's decision was proper will remain open for consideration during the public comment period discussed under WAC 173-303-840 (4)(d) and in any subsequent hearing. [Statutory Authority: Chapter 70-.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-525, filed 6/3/86.]

WAC 173-303-550 Special requirements for facilities managing moderate risk waste. (1) Purpose. Moderate risk wastes (as defined in WAC 173-303-040(55)) pose less risk to public health and the environment than do other dangerous wastes, therefore, they do not require as high a level of regulation. The purpose of WAC 173-303-550 through 173-303-560 is to set forth those mandatory standards which are minimally acceptable for managing moderate risk waste, and the criteria and selective standards which will be applied based on the specific risks posed by such wastes.

(2) Applicability. The requirements of WAC 173-303-550 through 173-303-560 apply to owners and operators of facilities which manage moderate risk waste, and are only applicable to such moderate risk wastes as are being managed. Whenever a moderate risk waste is shipped from a facility, the owner or operator must comply with WAC 173-303-170 through 173-303-230, requirements for generators.

(3) Standards. The owner/operator of a facility managing moderate risk wastes must comply with all applicable standards of this chapter unless he requests (as described in subsection (4) of this section) and the department approves (as described in subsection (5) of this section) the application of less stringent standards to his facility. The owner/operator may request relief from any standards except those minimum standards specified in WAC 173-303-560. Failure to comply with an approval issued by the department pursuant to subsection (5) of this section, will be a violation of this chapter. Failure to comply with all applicable requirements of this chapter while the department is considering a request or after a request has been denied will be a violation of this chapter.

(4) Request. The owner/operator may request that less stringent standards be applied to his moderate risk waste management activities in any manner or form that he chooses. His request must be submitted in writing to the department, and must include:

(a) The facility name, EPA/state identification #, address, telephone number, and a contact person at the facility;

(b) The moderate risk waste(s) managed at the facility and the type(s) of management applied to them;

(c) The specific standards from which the owner/operator seeks relief;

(d) A description, for each standard, demonstrating:

(i) Why the owner/operator believes the standard to be unnecessary;

(ii) How public health and the environment will continue to be protected if the standard is not applied to the facility; and

(iii) Any evidence supporting the contention that public health and the environment will be adequately protected if the standard is not applied (e.g., test data, diagrams, experiences at similar facilities, records, reports, etc.); and

(e) The following certification, signed and dated by a person who would be authorized to sign a report under WAC 173-303-810 (12)(b):

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this request and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The department may ask for any additional information it deems necessary, and will not consider approval of the owner's/operator's request until all necessary information has been submitted. Failure to provide any of the information required by this subsection may result in the department's denying the owner's/operator's request.

(5) Approval or denial. The department will review any requests submitted pursuant to subsection (4) of this section, and based on the adequacy of the information provided in the request will approve or deny all or any part of the request. The department will notify the owner/operator of its decision in writing. Approval of a request will not be final until the permit has been modified or issued as described in (a) or (b) of this subsection. If the department decides to approve all or part of the request and the owner/operator agrees with the department's decision, then the department will proceed to grant such approval as follows:

(a) Interim status facilities. For a facility which qualifies for interim status (as described in WAC 173-303-805), the department shall issue a notice of interim status modification in accordance with WAC 173-303-805(8) stating what standards the owner/operator must meet;

(b) Final facilities.

(i) For facilities which are required to have a final facility permit, the department shall follow the procedures for issuing (or, for facilities which already have a final facility permit, the procedures for modifying) a final facility permit, as described in WAC 173-303-806. The new or modified final facility permit shall include the standards the owner/operator must meet.

(ii) The department may request that an applicant for a final facility permit submit his planned moderate risk

demonstrations (prepared in accordance with subsection (4) of this section) a maximum of three months prior to submittal of his Part B application. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-550, filed 4/18/84.]

WAC 173-303-560 Minimum standards for facilities managing moderate risk waste. In no case will the department approve standards for facilities managing moderate risk waste which do not include, at a minimum, the following applicable requirements:

(1) WAC 173-303-060;
(2) WAC 173-303-350;
(3) WAC 173-303-360;
(4) WAC 173-303-370;
(5) WAC 173-303-380;
(6) WAC 173-303-390; and
(7) WAC 173-303-430. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-560, filed 4/18/84.]

WAC 173-303-575 (Reserved.) [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-575, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-575, filed 2/10/82.]

WAC 173-303-600 Final facility standards. Purpose, scope, and applicability.

(1) The purpose of WAC 173-303-600 through 173-303-670, is to establish minimum state-wide standards which describe the acceptable management of dangerous waste In addition to WAC 173-303-600 through 173-303-670, the final facility standards include WAC 173-303-280 through 173-303-395, and 173-303-420 through 173-303-440.

(2) The final facility standards apply to owners and operators of all facilities which treat, store or dispose of dangerous waste, and which are not exempted by subsection (3) of this section.

(3) The final facility standards do not apply to:

(a) Persons whose disposal activities are permitted under the Marine Protection, Research and Sanctuaries Act, except that storage, or treatment facilities where dangerous waste is loaded onto an ocean vessel for incineration or disposal at sea are subject to final facility standards;

(b) Persons whose disposal activities are permitted under the Underground Injection Control Program of the Safe Drinking Water Act, except that storage, or treatment facilities needed to handle dangerous wastes are subject to final facility standards;

(c) Owners or operators of POTWs which treat, store, or dispose of dangerous waste provided they follow the permit-by-rule requirement of WAC 173-303-802(4);

(d) A generator accumulating waste on site in compliance with WAC 173-303-200;

(e) The owner or operator of a facility which is permitted to manage solid waste pursuant to chapter 173-301 WAC, if the only dangerous waste the facility manages is excluded from regulation under this chapter by WAC 173-303-070(8);

(f) A farmer disposing of waste pesticides from his own use provided he complies with WAC 173-303-160 (2)(b);

(g) A transporter storing a manifested shipment of dangerous waste for ten days or less in accordance with WAC 173-303-240(5);

(h) Any person, other than an owner or operator who is already subject to the final facility standards, who is carrying out an immediate or emergency response to contain or treat a discharge or potential discharge of a dangerous waste or hazardous substance;

(i) The owner or operator of a facility which is in compliance with the interim status requirements of WAC 173-303-400 and 173-303-805, until final administrative disposition of his final facility permit;

(j) The owner or operator of a totally enclosed treatment facility or elementary neutralization or wastewater treatment unit as defined in WAC 173-303-040, provided that he complies with the permit by rule requirements of WAC 173-303-802(5); and

(k) The addition, by a generator, of absorbent material to waste in a container, or of waste to absorbent material in a container, provided that these actions occur at the time the waste is first placed in containers and the generator complies with WAC 173-303-200 (1)(b) and 173-303-395 (1)(a) and (b).

(4) The owner or operator of a final status TSD facility which manages moderate risk waste may comply with the special requirements selected under WAC 173-303-550 through 173-303-560 in lieu of the final facility standards of WAC 173-303-600 through 173-303-670, but only for those moderate risk wastes which he manages and only after the department has issued or modified his final facility permit in accordance with WAC 173-303-800 through 173-303-840 to incorporate the special requirements.

(5) The owner or operator of a facility which recycles dangerous waste may, for such recycled wastes only, comply with the applicable recycling standards specified in WAC 173-303-120 and 173-303-500 through 173-303-525 in lieu of the final facility standards. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-600, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-600, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-600, filed 2/10/82.]

WAC 173-303-610 Closure and postclosure. (1) Applicability.

(a) Subsections (2) to (6) of this section, (which concern closure), apply to the owners and operators of all dangerous waste facilities.

(b) Subsections (7) to (10) of this section, (which concern postclosure care), apply to the owners and operators of all regulated units (as defined in WAC 173-303-040(75)) at which dangerous waste will remain after closure, to surface impoundments and waste piles as

specified in WAC 173-303-650(6) and 173-303-660(9), and, unless otherwise authorized by the department, to the owners and operators of all facilities which, at closure, cannot meet the removal or decontamination limits specified in subsection (2)(b) of this section.

(c) For the purposes of the closure and postclosure requirements, any portion of a facility which closes is subject to the applicable closure and postclosure standards even if the rest of the facility does not close and continues to operate.

(2) Closure performance standard. The owner or operator must close the facility in a manner that:

(a)(i) Minimizes the need for further maintenance;

(ii) Controls, minimizes or eliminates to the extent necessary to prevent threats to human health and the environment, postclosure escape of dangerous waste, dangerous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground, surface water, ground water, or the atmosphere; and

(iii) Returns the land to the appearance and use of surrounding land areas to the degree possible given the nature of the previous dangerous waste activity.

(b) Where the closure requirements of this section, or of WAC 173-303-630(10), 173-303-640(5), 173-303-650(6), 173-303-655(8), 173-303-660(9), or 173-303-670(8) call for the removal or decontamination of dangerous wastes, waste residues, or equipment, bases, liners, soils or other materials containing or contaminated with dangerous wastes or waste residue, then such removal or decontamination must assure that the levels of dangerous waste or dangerous waste constituents or residues do not exceed:

(i) Background environmental levels, for any dangerous waste, managed at the facility, which either is listed under WAC 173-303-081 or 173-303-082 or is designated by the characteristics of WAC 173-303-090; and

(ii) At least the designation limits of WAC 173-303-084, or 173-303-101 through 173-303-103 for any dangerous waste, managed at the facility, which is not listed under WAC 173-303-081 or 173-303-082 and is not designated by the characteristics of WAC 173-303-090. In addition to these limits, the department may specify in the closure plan for a facility any lower limits for removal or decontamination which the department deems appropriate.

(3) Closure plan; amendment of plan.

(a) The owner or operator of a dangerous waste management facility must have a written closure plan. The plan must be submitted with the permit application, in accordance with WAC 173-303-806(4), and approved by the department as part of the permit issuance proceeding under WAC 173-303-840. The approved closure plan will become a condition of any permit. The department's decision must assure that the approved closure plan is consistent with subsections (2), (3), (4), (5), and (6) of this section, and the applicable requirements of WAC 173-303-630(10), 173-303-640(5), 173-303-650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), and 173-303-670(8). A copy of the approved plan and all revisions to the plan must be kept at the facility until closure is completed and certified in accordance with subsection (6) of this section. The plan must identify steps necessary to completely or partially close the facility at any point during its intended operating life and to completely close the facility at the end of its intended operating life. The closure plan must include at least:

(i) A description of how and when the facility will be partially closed, if applicable, and finally closed. The description must identify the maximum extent of the operation which will be unclosed during the life of the facility and how the requirements of subsections (2) to (6) of this section, and the applicable closure requirements of WAC 173-303-630(10), 173-303-640(5), 173-303-650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), and 173-303-670(8) will be met;

(ii) An estimate of the maximum inventory of wastes in storage and in treatment at any time during the life of the facility. (Any change in this estimate is a minor modification under WAC 173-303-830(4));

(iii) A description of the steps needed to decontaminate facility equipment during closure; and

(iv) An estimate of the expected year of closure and a schedule for final closure. The schedule must include, at a minimum, the total time required to close the facility and the time required for intervening closure activities which will allow tracking of the progress of closure. (For example, in the case of a landfill, estimates of the time required to treat and dispose of all waste inventory and of the time required to place a final cover must be included.)

(b) The owner or operator may amend his closure plan at any time during the active life of the facility. (The active life of the facility is that period during which wastes are periodically managed on-site or received from off-site.) The owner or operator must amend the plan whenever changes in operating plans or facility design affect the closure plan, or whenever there is a change in the expected year of closure. When the owner or operator requests a permit modification to authorize a change in operating plans or facility design, he must request a modification of the closure plan at the same time. If a permit modification is not needed to authorize the change in operating plans or facility design, the request for modification of the closure plan must be made within sixty days after the change in plans or design occurs.

(c) The owner or operator must notify the department at least one hundred eighty days prior to the date he expects to begin closure.

(4) Closure; time allowed for closure.

(a) Within ninety days after receiving the final volume of dangerous wastes, the owner or operator must treat, remove from the site, or dispose of on site, all dangerous wastes in accordance with the approved closure plan. The department may approve a longer period if the owner or operator demonstrates that he has taken and will continue to take all steps to prevent threats to human health and the environment, and either:

(i) The activities required to comply with this paragraph will, of necessity, take longer than ninety days to complete; or

(ii)(A) The facility has the capacity to receive additional wastes;

(B) There is a reasonable likelihood that a person other than the owner or operator will recommence operation of the site; and

(C) Closure of the facility would be incompatible with continued operation of the site.

(b) The owner or operator must complete closure activities in accordance with the approved closure plan within one hundred eighty days after receiving the final volume of wastes. The department may approve a longer closure period if the owner or operator demonstrates that he has taken and will continue to take all steps to prevent threats to human health and the environment, and either:

(i) The closure activities will, of necessity, take longer than one hundred eighty days to complete; or

(ii) (A) The facility has the capacity to receive additional wastes;

(B) There is reasonable likelihood that a person other than the owner or operator will recommence operation of the site; and

(C) Closure of the facility would be incompatible with continued operation of the site.

(5) Disposal or decontamination of equipment. When closure is completed, all facility equipment and structures must have been properly disposed of, or decontaminated by removing all dangerous waste and residues.

(6) Certification of closure. When closure is completed, the owner or operator must submit to the department certification both by the owner or operator and by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan.

(7) Postclosure care and use of property.

(a) Postclosure care must continue for thirty years after the date of completing closure and must consist of at least the following:

(i) Ground water monitoring and reporting as applicable; and

(ii) Maintenance of monitoring and waste containment systems as applicable.

(b) During the one hundred eighty-day period preceding closure (see subsection (3)(c) of this section) or at any time thereafter, the department may reduce the postclosure care period to less than thirty years if it finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or ground water monitoring results, characteristics of the waste, application of advanced technology, or alternative disposal, treatment, or reuse techniques indicate that the facility is secure).

Prior to the time that the postclosure care period is due to expire the department may extend the postclosure care period if it finds that the extended period is necessary to protect human health and the environment (e.g., leachate or ground water monitoring results indicate a potential for migration of waste at levels which may be harmful to human health and the environment).

(c) The department may require, at closure, continuation of any of the security requirements of WAC 173-303-310 during part or all of the postclosure period after the date of completing closure when:

(i) Wastes may remain exposed after completion of closure; or

(ii) Access by the public or domestic livestock may pose a hazard to human health or may disturb the postclosure monitoring or waste containment systems.

(d) Postclosure use of property on or in which dangerous wastes remain after closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of any containment system, or the function of the facility's monitoring systems, unless the department finds that the disturbance:

(i) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(ii) Is necessary to reduce a threat to human health or the environment.

(e) All postclosure care activities must be in accordance with the provisions of the approved postclosure plan as specified in subsection (8) of this section.

(8) Postclosure plan; amendment of plan.

(a) The owner or operator of a disposal facility must have a written postclosure plan. In addition, certain piles and certain surface impoundments are required by WAC 173-303-650 and 173-303-660, respectively, to have written postclosure plans. The plan must be submitted with the permit application in accordance with WAC 173-303-806(4), and approved by the department as part of the permit issuance proceeding under WAC 173-303-840. The approved postclosure plan will become a condition of any permit issued. The department's decision must assure that the approved postclosure plan is consistent with subsections (7), (8), (9), and (10) of this section, and the applicable requirements of WAC 173-303-650(6), 173-303-655(8), 173-303-660(9), and 173-303-665(6). A copy of the approved plan and all revisions to the plan must be kept at the facility until the postclosure care period begins. This plan must identify the activities which will be carried on after closure and the frequency of these activities, and include at least:

(i) A description of the planned ground water monitoring activities and frequencies at which they will be performed;

(ii) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(A) The integrity of the cap and final cover or other containment structures where applicable; and

(B) The function of the facility monitoring equipment;

(iii) And the name, address, and phone number of the person or office to contact about the disposal facility during the postclosure period. This person or office must keep an updated postclosure plan during the postclosure period.

(b) The owner or operator may amend his postclosure plan at any time during the active life of the disposal facility or during the postclosure care period. The owner or operator must amend his plan whenever changes in operating plans or facility design, or events which occur during the active life of the facility or during the

postclosure period, affect his postclosure plan. He must also amend his plan whenever there is a change in the expected year of closure.

(c) When a permit modification is requested during the active life of the facility to authorize a change in operating plans or facility design which affects the postclosure plan, modification of the postclosure plan must be requested at the same time. In all other cases the request for modification of the postclosure plan must be made within sixty days after the change in operating plans or facility design or the events which affect his postclosure plan occur.

(9) Notice to local land authority. Within ninety days after closure is completed, the owner or operator of a disposal facility must submit to the local zoning authority or the authority with jurisdiction over local land use and to the department a survey plat indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority or the authority with jurisdiction over local land use must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the site as specified in subsection (7)(d) of this section. In addition, the owner or operator must submit to the local zoning authority or the authority with jurisdiction over local land use and to the department, a record of the type, location, and quantity of dangerous wastes disposed of within each cell or area of the facility. For wastes disposed of before November 19, 1980 (March 12, 1982, for facilities subject to this chapter but not subject to 40 CFR Part 264), the owner or operator must identify the type, location, and quantity of the wastes to the best of his knowledge and in accordance with any records he has kept (including, but not limited to, records kept in compliance with 40 CFR Part 265). Any changes in the type, location, or quantity of dangerous wastes disposed of within each cell or area of the facility that occur after the survey plat and record of wastes have been filed must be reported to the local zoning authority or the authority with jurisdiction over local land use and to the department.

(10) Notice in deed to property.

(a) The owner of the property on which a disposal facility is located must record, in accordance with state law, a notation on the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that:

(i) The land has been used to manage dangerous wastes;

(ii) Its use is restricted under subsection (7)(d) of this section; and

(iii) The survey plat and record of the type, location, and quantity of dangerous wastes disposed of within each cell or area of the facility required in subsection (9) of this section have been filed with the local zoning authority, or the authority with jurisdiction over local land use, and with the department.

(b) If at any time the owner or operator or any subsequent owner of the land upon which a dangerous waste facility was located removes the waste and waste residues, the liner, if any, and all contaminated underlying and surrounding soil, he may remove the notation on the deed to the facility property or other instrument normally examined during title search, or he may add a notation to the deed or instrument indicating the removal of the waste. [Statutory Authority: Chapter 70.105 RCW. 84-14-031 (Order DE 84-22), § 173-303-610, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-610, filed 2/10/82.]

WAC 173-303-620 Financial requirements. (1) Applicability.

(a) The requirements of subsections (3), (4), (7), (8), (9), and (10) of this section, apply to owners and operators of all dangerous waste facilities, except as provided otherwise in this section.

(b) The requirements of subsections (5) and (6) of this section apply only to owners and operators of dangerous waste disposal facilities, and piles and surface impoundments to the extent that WAC 173-303-650 and 173-303-660, respectively, require that such facilities comply with this section.

(c) States and the federal government are exempt from the requirements of this section, except that operators of facilities who are under contract with the state or federal government must meet the requirements of this section.

(2) Definitions. As used in this section, the following listed or referenced terms shall have the meanings given below:

(a) "Closure plan" means the plan for closure prepared in accordance with the requirements of WAC 173-303-610(3);

(b) "Current closure cost estimate" means the most recent of the estimates prepared in accordance with subsection (3) of this section;

(c) "Current postclosure cost estimate" means the most recent of the estimates prepared in accordance with subsection (5) of this section;

(d) "Parent corporation" means a corporation which directly owns at least fifty percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation;

(e) "Postclosure plan" means the plan for postclosure care prepared in accordance with the requirements of WAC 173-303-610 (7), (8), (9), and (10);

(f) "Regional administrator" means the department;

(g) "Hazardous waste" means dangerous waste; and

(h) The additional terms listed and defined in 40 CFR 264.141 (f) and (g) are adopted by reference.

(3) Cost estimate for facility closure.

(a) The owner or operator must have a written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in WAC 173-303-610 (2) through (6), and applicable closure requirements in WAC 173-303-630(10), 173-303-640(5), 173-303-

650(6), 173-303-655(8), 173-303-660(9), 173-303-665(6), and 173-303-670(8). The estimate must equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see WAC 173-303-610 (3)(a)).

(b) The owner or operator must prepare a new closure cost estimate whenever a change in the closure plan increases the cost of closure.

(c) The owner or operator must adjust the closure cost estimate for inflation within thirty days after each anniversary of the date on which the first closure cost estimate was prepared. The adjustment must be made as specified in (c) (i) and (ii) of this subsection, using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the United States Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year.

(i) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(ii) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(d) During the operating life of the facility, the owner or operator must keep at the facility the latest closure cost estimate prepared in accordance with (a) and (b) of this subsection, and, when this estimate has been adjusted in accordance with (c) of this subsection, the latest adjusted closure cost estimate.

(4) Financial assurance for facility closure.

(a) An owner or operator of a TSD facility must establish financial assurance for closure of the facility. The owner or operator must choose from the following options or combination of options:

(i) Closure trust fund;

(ii) Surety bond guaranteeing payment into a closure trust fund;

(iii) Surety bond guaranteeing performance of closure;

(iv) Closure letter of credit;

(v) Closure insurance; or

(vi) Financial test and corporate guarantee for closure.

(b) In satisfying the requirements of financial assurance for facility closure in this subsection, the owner or operator shall meet all the requirements set forth in 40 CFR 264.143.

(5) Cost estimate for postclosure monitoring and maintenance.

(a) The owner or operator of a facility subject to postclosure monitoring or maintenance requirements must have a written estimate, in current dollars, of the annual cost of postclosure monitoring and maintenance of the facility in accordance with the applicable postclosure regulations in WAC 173-303-610 (7) through (10), 173-303-650(6), 173-303-655(8), 173-303-660(9), and 173-303-665(6). The postclosure cost estimate is calculated by multiplying the annual postclosure cost estimate by the number of years of postclosure care required by WAC 173-303-610.

(b) The owner or operator must prepare a new annual postclosure cost estimate whenever a change in the postclosure plan increases the cost of postclosure care.

(c) During the operating life of the facility, the owner or operator must adjust the postclosure cost estimate for inflation within thirty days after each anniversary of the date on which the first postclosure cost estimate was prepared. The adjustment must be made as specified in (c)(i) and (ii) of this subsection using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the United States Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year.

(i) The first adjustment is made by multiplying the postclosure cost estimate by the inflation factor. The result is the adjusted postclosure cost estimate.

(ii) Subsequent adjustments are made by multiplying the latest adjusted postclosure cost estimate by the latest inflation factor.

(d) During the operating life of the facility, the owner or operator must keep at the facility the latest postclosure cost estimate prepared in accordance with (a) and (b) of this subsection, and, when this estimate has been adjusted in accordance with (c) of this subsection, the latest adjusted postclosure cost estimate.

(6) Financial assurance for postclosure monitoring and maintenance.

(a) An owner or operator of a facility subject to postclosure monitoring or maintenance requirements must establish financial assurance for postclosure care in accordance with the approved postclosure care plan. He must choose from the following options or combination of options:

(i) Postclosure trust fund;

(ii) Surety bond guaranteeing payment into a postclosure trust fund;

(iii) Surety bond guaranteeing performance of postclosure care;

(iv) Postclosure letter of credit;

(v) Postclosure insurance; or

(vi) Financial test and corporate guarantee for postclosure care.

(b) In satisfying the requirements of financial assurance for facility postclosure care in this subsection, the owner or operator shall meet all the requirements set forth in 40 CFR 264.145.

(7) Use of a mechanism for financial assurance of both closure and postclosure care. An owner or operator may satisfy the requirements for financial assurance for both closure and postclosure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both 40 CFR 264.143 and 264.145. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate

mechanism had been established and maintained for financial assurance of closure and of postclosure care.

(8) Liability requirements.

(a) An owner or operator of a TSD facility or a group of such facilities must demonstrate financial responsibility for bodily injury and property damages to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must meet the requirements of 40 CFR 264.147(a) or, when applicable, (f).

(b) An owner or operator of a facility with a regulated unit or units (as defined in WAC 173-303-040(75)) used to manage dangerous waste or a group of such facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must meet the requirements of 40 CFR 264.147(b) or, when applicable, (f).

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the department that the levels of financial responsibility required by (a) or (b) of this subsection are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the department. The request for a variance must be submitted to the department as part of the application under WAC 173-303-806(4) for a facility that does not have a permit, or pursuant to the procedures for permit modification under WAC 173-303-830 for a facility that has a permit. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The department may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the department to determine a level of financial responsibility other than that required by (a) or (b) of this subsection. Any request for a variance for a permitted facility will be treated as a request for a permit modification under WAC 173-303-830.

(d) Adjustments by the department. If the department determines that the levels of financial responsibility required by (a) or (b) of this subsection are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the department may adjust the level of financial responsibility required under (a) or (b) of this subsection as may be necessary to protect human health and the environment. This adjusted level will be based on the department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the department determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that has no regulated units (as defined in WAC 173-303-040(75)), it may require that the owner or operator of the facility comply with (b) of this subsection. An owner or operator must furnish to the department within a reasonable time, any information which the department requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustments of level or type of coverage for a facility that has a permit will be treated as a permit modification under WAC 173-303-830.

(e) Period of coverage. An owner or operator must continuously provide liability coverage for a facility as required by this subsection until certifications of closure of the facility, as specified in WAC 173-303-610(6), are received by the department.

(9) Incapacity of owners or operators, guarantor or financial institutions.

(a) An owner or operator must notify the department by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), United States Code, naming the owner or operator as debtor, within ten days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in 40 CFR 264.143(f) and 264.145(f) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (40 CFR 264.151(h)).

(b) An owner or operator who fulfills the requirements of 40 CFR 264.143, 264.145, or 264.147 (a) or (b) by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within sixty days after such an event.

(10) Wording of the instruments. The financial instruments required by this section shall contain the wording specified by 40 CFR 264.151, except that:

(a) The words "regional administrator" and "environmental protection agency" must be replaced with the word "department";

(b) The words "hazardous waste" must be replaced with the words "dangerous waste"; and

(c) Any other words specified by the department shall be changed as necessary to assure financial responsibility of the facility in accordance with the requirements of this section.

Copies of the financial instruments with the appropriate word changes will be available from the department by June 30, 1984. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-620, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-620, filed 2/10/82. Formerly WAC 173-302-340.]

WAC 173-303-630 Use and management of containers. (1) Applicability. The regulations in this section apply to owners and operators of all dangerous waste facilities that store containers of dangerous waste.

(2) Condition of containers. If a container holding dangerous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the dangerous waste from the container to a container that is in good condition or manage the waste in some other way that complies with the requirements of chapter 173-303 WAC.

(3) Identification of containers. The owner or operator must label containers in a manner which adequately identifies the major risk(s) associated with the contents of the containers for employees, emergency response personnel and the public (Note—If there is already a system in use that performs this function in accordance with local, state or federal regulations, then such system will be adequate). The owner or operator must affix labels upon transfer of dangerous wastes from one container to another. The owner or operator must destroy or otherwise remove labels from the emptied container, unless the container will continue to be used for storing dangerous waste at the facility. The owner or operator must ensure that labels are not obscured, removed, or otherwise unreadable in the course of inspection required under WAC 173-303-320.

(4) Compatibility of waste with containers. The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the dangerous waste to be stored, so that the ability of the container to contain the waste is not impaired.

(5) Management of containers.

(a) A container holding dangerous waste must always be closed, except when it is necessary to add or remove waste.

(b) A container holding dangerous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

(6) Inspections. At least weekly, the owner or operator must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion, deterioration, or other factors.

(7) Containment.

(a) Container storage areas must have a containment system that is capable of collecting and holding spills and leaks. In addition to the necessary leak containment capacity, uncovered storage areas must be capable of holding the additional volume that would result from the precipitation of a maximum twenty-five year storm of twenty-four hours duration. The containment system must:

(i) Have a base underlying the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated rainfall until the collected material is detected and removed. The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

(ii) Be designed for positive drainage control (such as a locked drainage valve) to prevent release of contaminated liquids and so that uncontaminated precipitation can be drained promptly for convenience of operation. Spilled or leaked waste and accumulated precipitation must be removed from the containment system in as timely a manner as is necessary to prevent overflow; and

(iii) Have sufficient capacity to contain ten percent of the volume of all containers or the volume of the largest container, whichever is greater. Only containers holding free liquids, or holding wastes designated as F020, F021, F022, F023, F026, or F027 need to be considered in this determination.

(b) Run-on into the containment system must be prevented, unless the department waives this requirement in the permit after determining that the collection system has sufficient excess capacity in addition to that required in (a)(iii) of this subsection to accommodate any run-on which might enter the system.

(c) Storage areas that store containers holding only wastes that do not contain free liquids, do not exhibit either the characteristic of ignitability or reactivity as described in WAC 173-303-090 (5) or (7), and are not designated as F020, F021, F022, F023, F026, or F027, need not have a containment system as described in this subsection: *Provided*, That:

(i) The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation; or

(ii) The containers are elevated or are otherwise protected from contact with accumulated liquids.

(d) EHW in containers must be protected from the elements by means of a building or other protective covering that otherwise allows adequate inspection under subsection (6) of this section.

(8) Special requirements for ignitable or reactive waste.

(a) Containers holding reactive waste exhibiting a characteristic specified in WAC 173-303-090 (7)(a)(vi), (vii) or (viii) must be stored in a manner equivalent to the Uniform Fire Code's "*American Table of Distances for Storage of Explosives*," Table 77-201, 1979 edition.

(b) The owner or operator shall design, operate, and maintain ignitable waste and reactive waste (other than a reactive waste which must meet (a) of this subsection) container storage in a manner equivalent with the Uniform Fire Code. Where no specific standard or requirements are specified in the Uniform Fire Code, or in existing state or local fire codes, applicable sections of the NFPA Pamphlet # 30, "*Flammable and Combustible Liquids Code*," shall be used. The owner/operator shall also comply with the requirements of WAC 173-303-395 (1)(d).

(9) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials must not be placed in the same container, unless WAC 173-303-395 (1)(b) is complied with.

(b) Dangerous waste must not be placed in an unwashed container that previously held an incompatible waste or material.

(c) A storage container holding a dangerous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. Containment systems for incompatible wastes shall be separate.

(10) Closure. At closure, all dangerous waste and dangerous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with dangerous waste or dangerous waste residues must be decontaminated or removed. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-630, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-630, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-630, filed 2/10/82.]

WAC 173-303-640 Tanks. (1) Applicability.

(a) The regulations in WAC 173-303-640 apply to owners and operators of facilities that use tanks to treat or store dangerous waste, except as (b) of this subsection provides otherwise.

(b) Facilities shall not treat or store dangerous waste in covered underground tanks that cannot be entered for inspection, unless such tanks are used for treating or storing only moderate risk wastes (as defined in WAC 173-303-040(55)) and can be externally inspected or have secondary containment structures that allow for monitoring, containment and removal of leaks or can be tested for leakage using methods and testing frequencies approved by the department.

(2) Design of tanks.

(a) The owner or operator shall design tanks including the foundation, structural support, seams and pressure controls to assure that they will not collapse or rupture, by providing sufficient shell strength, pressure controls for closed tanks, earthquake resistance etc. The owner/operator shall submit a statement with his permit application specified in WAC 173-303-806(4), stating the basis for selecting minimum shell thickness, such as:

(i) Underwriters Laboratories Inc. standards;

(ii) American Petroleum Institute standards;

(iii) American Concrete Institute standards; or

(iv) American Society of Mechanical Engineers standards.

The statement shall be certified by a licensed professional engineer. The department will review and approve tank design.

(b) New tanks holding dangerous waste shall be constructed above ground and shall be protected against spills, leaks, and precipitation by a containment system which must include an impervious base underlying the tanks in the storage area, unless state or local fire codes require otherwise. The containment system shall have adequate capacity to contain one hundred ten percent of the volume of the largest tank in the storage area and, for uncovered areas, have sufficient capacity to contain additionally the precipitation of a maximum twenty-five year storm of twenty-four hours duration.

(c) All tanks holding dangerous waste shall be marked with labels or signs to identify the waste contained in the tank. The label or sign shall be legible at a distance of at least fifty feet, and shall bear a legend which identifies the waste in a manner which adequately warns employees, emergency response personnel, and the public of the major risk(s) associated with the waste being stored or treated in the tanks (Note—If there is already a system in use that performs this function in accordance with local, state or federal regulations, then such system will be adequate).

(d) All tanks holding EHW which is acutely or chronically toxic by inhalation must be designed to prevent escape of vapors, fumes, or other emissions into the air.

(3) General operating requirements.

(a) Wastes and other materials (e.g., treatment reagents) which are incompatible with the material of construction of the tank must not be placed in the tank unless the tank is protected from accelerated corrosion, erosion, or abrasion through the use of:

(i) An inner liner or coating which is compatible with the waste or material and which is free of leaks, cracks, holes, or other deterioration; or

(ii) Alternative means of protection (e.g., cathodic protection or corrosion inhibitors).

(b) The owner or operator must use appropriate controls and practices to prevent overfilling. These must include:

(i) Controls to prevent overfilling (e.g., waste feed cut-off system or by-pass system to a standby tank); and

(ii) For uncovered tanks, maintenance of sufficient freeboard to prevent overtopping by wave or wind action or precipitation.

(4) Inspections.

(a) The owner or operator must inspect:

(i) Overfilling control equipment (e.g., waste feed cut-off systems and by-pass systems) at least once each operating day to ensure that it is in good working order;

(ii) Data gathered from monitoring equipment (e.g., pressure, level, volume, and temperature gauges) where present, at least once each operating day to ensure that the tank is being operated according to its design;

(iii) For uncovered tanks, the level of waste in the tank, at least once each operating day or before each filling to ensure compliance with subsection (3)(b) of this section;

(iv) The construction materials of the above-ground portions of the tank, at least weekly to detect corrosion or erosion and leaking of fixtures and seams; and

(v) The area immediately surrounding the tank, at least weekly, to detect obvious signs of leakage (e.g., wet spots or dead vegetation).

(b) As part of the inspection schedule required in WAC 173-303-320(2), and the specific requirements of this subsection, the owner or operator must develop a schedule and procedure for assessing the condition of the tank. The schedule and procedure must be adequate to detect cracks, leaks, corrosion, or erosion which may lead to cracks or leaks, or wall thinning to less than the

thickness specified in subsection (2) of this section. Procedures for emptying a tank to allow entry and inspection of the interior must be established when necessary to detect corrosion or erosion of the tank sides and bottom. The frequency of these assessments must be based on the material of construction of the tank, type of corrosion or erosion protection used, rate of corrosion or erosion observed during previous inspections, and the nature of the waste being treated or stored.

(c) As part of the contingency plan required under WAC 173-303-350, the owner or operator must specify the procedures he intends to use to respond to tank spills or leakage, including procedures and timing for expeditious removal of leaked or spilled waste and repair of the tank.

(5) Closure. At closure, all dangerous waste and dangerous waste residues must be removed from tanks, discharge control equipment, containment systems and underlying bases (where present), and discharge confinement structures. Any tanks, bases, liners and soils containing or contaminated with dangerous waste or dangerous waste residues must be removed or decontaminated.

(6) Special requirements for ignitable or reactive wastes.

(a) Ignitable or reactive waste must not be placed in a tank unless:

(i) The waste is treated, rendered, or mixed before or immediately after placement in the tank so that the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under WAC 173-303-090, and 173-303-395 (1)(b) is complied with; or

(ii) The waste is stored or treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react; or

(iii) The tank is used solely for emergencies.

(b) The owner or operator of a facility which treats or stores ignitable or reactive waste in covered tanks must locate the tanks in a manner equivalent to the National Fire Protection Association's buffer zone requirements for tanks, contained in Tables 2-1 through 2-6 of the NFPA-30 *Flammable and Combustible Liquids Code* - 1981, or as required by state and local fire codes when such codes are more stringent. The owner or operator shall also comply with the requirements of WAC 173-303-395 (1)(d).

(7) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, must not be placed in the same tank, unless WAC 173-303-395 (1)(b) is complied with.

(b) Dangerous waste must not be placed in an unwashed tank which previously held an incompatible waste or material, unless WAC 173-303-395 (1)(b) is complied with.

(8) Special requirements for dangerous wastes F020, F021, F022, F023, F026, and F027.

In addition to the other requirements of this section, the following requirements apply to tanks storing or treating dangerous wastes F020, F021, F022, F023, F026, or F027.

(a) Tanks must have systems designed and operated to detect and adequately contain spills or leaks. The design and operation of any containment system must reflect consideration of all relevant factors, including.

(i) Capacity of the tank;

(ii) Volumes and characteristics of wastes stored or treated in the tank;

(iii) Method of collection of spills or leaks;

(iv) The design and construction materials of the tank and containment system; and

(v) The need to prevent precipitation and run-on from entering into the system.

(b) As part of the contingency plan required by WAC 173-303-350, the owner or operator must specify such procedures for responding to a spill or leak from the tank into the containment system as may be necessary to protect human health and the environment. These procedures shall include measures for immediate removal of the waste from the system and replacement or repair of the leaking tank. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-640, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-640, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-640, filed 2/10/82. Formerly chapter 173-302 WAC.]

WAC 173-303-645 Ground water protection. (1) Applicability.

(a) Except as provided in (b) of this subsection, the regulations in this section apply to owners and operators of facilities that treat, store, or dispose of dangerous waste in surface impoundments, waste piles, land treatment units, or landfills. The owner or operator must satisfy the requirements of this section for all wastes (or constituents thereof) contained in any such waste management unit at the facility that is a "regulated unit" (as defined in WAC 173-303-040(75)). Any waste or waste constituent migrating beyond the waste management area under subsection (6)(b) of this section, is assumed to originate from a regulated unit unless the owner or operator can prove to the satisfaction of the department that such waste or waste constituent originated from another source.

(b) The owner or operator is not subject to regulation under this section if:

(i) He designs and operates a surface impoundment in compliance with WAC 173-303-650(3) (except as provided for surface impoundments treating or storing EHW), a pile in compliance with WAC 173-303-660 (1)(c), (3), or (4), or a landfill in compliance with WAC 173-303-665(3);

(ii) The department finds, pursuant to WAC 173-303-655 (8)(d), that the treatment zone of a land treatment unit does not contain levels of dangerous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of WAC 173-303-655(6) has not shown a statistically significant increase in dangerous constituents below the treatment zone during the

operating life of the unit. An exemption under this subsection can only relieve an owner or operator of responsibility to meet the requirements of this section during the postclosure care period; or

(iii) The department finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the postclosure care period. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions made under this subsection on assumptions that maximize the rate of liquid migration.

(c) The regulations under this section apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the regulations in this section:

(i) Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure in accordance with the removal or decontamination limits specified in WAC 173-303-610 (2)(b);

(ii) Apply during the postclosure care period if the owner or operator is conducting a detection monitoring program under subsection (9) of this section; and

(iii) Apply during the compliance period under subsection (7) of this section, if the owner or operator is conducting a compliance monitoring program under subsection (10) of this section, or a corrective action program under subsection (11) of this section.

(2) Required programs.

(a) Owners and operators subject to this section must conduct a monitoring and response program as follows:

(i) Whenever dangerous constituents under subsection (4) of this section, from a regulated unit are detected at the compliance point under subsection (6) of this section, the owner or operator must institute a compliance monitoring program under subsection (10) of this section;

(ii) Whenever the ground water protection standard under subsection (3) of this section, is exceeded, the owner or operator must institute a corrective action program under subsection (11) of this section;

(iii) Whenever dangerous constituents under subsection (4) of this section, from a regulated unit exceed concentration limits under subsection (5) of this section, in ground water between the compliance point under subsection (6) of this section and the downgradient facility property boundary, the owner or operator must institute a corrective action program under subsection (11) of this section; and

(iv) In all other cases, the owner or operator must institute a detection monitoring program under subsection (9) of this section.

(b) The department will specify in the facility permit the specific elements of the monitoring and response program. The department may include one or more of the programs identified in (a) of this subsection, in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the department will consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.

(3) Ground water protection standard. The owner or operator must comply with conditions specified in the facility permit that are designed to ensure that dangerous constituents under subsection (4) of this section, entering the ground water from a regulated unit do not exceed the concentration limits under subsection (5) of this section, in the uppermost aquifer underlying the waste management area beyond the point of compliance under subsection (6) of this section, during the compliance period under subsection (7) of this section. To the extent practical, the department will establish this ground water protection standard in the facility permit at the time the permit is issued. If the department determines that an established standard is not protective enough, or if the department decides that it is not practical to establish standards at the time of permit issuance, the department will establish the groundwater protection standard in the facility permit when dangerous constituents have entered the groundwater from a regulated unit.

(4) Dangerous constituents.

(a) The department will specify in the facility permit the dangerous constituents to which the ground water protection standard of subsection (3) of this section, applies. Dangerous constituents are constituents identified in WAC 173-303-9905, and any other constituents not listed there which have caused a waste to be regulated under this chapter, that may be or have been detected in ground water in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the department has excluded them under (b) of this subsection.

The department may also specify in the permit indicator parameters (e.g., specific conductance, pH, total organic carbon (TOC), total organic halogen (TOX), or heavy metals), waste constituents or reaction products as identified in the detection monitoring program under subsection (9)(a) of this section, that provide a reliable indication of the presence of dangerous constituents in the ground water.

(b) The department will exclude a WAC 173-303-9905 or other identified constituent from the list of dangerous constituents specified in the facility permit if it finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the department will consider the following:

(i) Potential adverse effects on ground water quality, considering:

(A) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(B) The hydrogeological characteristics of the facility and surrounding land;

(C) The quantity of ground water and the direction of ground water flow;

(D) The proximity and withdrawal rates of ground water users;

(E) The current and future uses of ground water in the area;

(F) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water quality;

(G) The potential for health risks caused by human exposure to waste constituents;

(H) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(I) The persistence and permanence of the potential adverse effects;

(ii) Potential adverse effects on hydraulically-connected surface water quality, considering:

(A) The volume and physical and chemical characteristics of the waste in the regulated unit;

(B) The hydrogeological characteristics of the facility and surrounding land;

(C) The quantity and quality of ground water, and the direction of ground water flow;

(D) The patterns of rainfall in the region;

(E) The proximity of the regulated unit to surface waters;

(F) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(G) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

(H) The potential for health risks caused by human exposure to waste constituents;

(I) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(J) The persistence and permanence of the potential adverse effects; and

(iii) Any identification of underground sources of drinking water and exempted aquifers made pursuant to chapter 90.48 RCW, chapter 270, Laws of 1983, and other applicable state laws and regulations.

(5) Concentration limits.

(a) The department will specify in the facility permit concentration limits in the ground water for dangerous constituents established under subsection (4) of this section. The concentration of a dangerous constituent:

(i) Must not exceed the background level of that constituent in the ground water at the time that limit is specified in the permit; or

(ii) For any of the constituents listed in Table 1 of this subsection, must not exceed the respective value given in that table if the background level of the constituent is below the value given in Table 1; or

(iii) Must not exceed an alternate limit established by the department under (b) of this subsection.

Table 1. Maximum Concentration of Constituents for Ground Water Protection

Constituent	Maximum Concentration[1]
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05
Endrin	0.0002
Lindane	0.004
Methoxychlor	0.1
Toxaphene	0.005
2,4-D	0.1
2,4,5-TP Silvex	0.01

[1]Milligrams per liter.

(b) The department will establish an alternate concentration limit for a dangerous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the department will consider the same factors listed in subsection (4)(b) (i) through (iii) of this section.

(6) Point of compliance.

(a) The department will specify in the facility permit the point of compliance at which the ground water protection standard of subsection (3) of this section, applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units. Alternatively, the point of compliance may be any closer points identified by the department at the time the permit is issued, considering the risks of the facility, the wastes and constituents managed there, the potential for waste constituents to have already migrated past the alternate compliance point, and the potential threats to ground and surface waters.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit. The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit. If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

(7) Compliance period.

(a) The department will specify in the facility permit the compliance period during which the ground water protection standard of subsection (3) of this section applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting, and the closure period).

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of subsection (10) of this section.

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in (a) of this subsection, the compliance period is extended until the owner or operator can demonstrate that the ground water protection standard of subsection (3) of this section, has not been exceeded for a period of three consecutive years.

(8) General ground water monitoring requirements.

The owner or operator must comply with the requirements of this subsection for any ground water monitoring program developed to satisfy subsections (9), (10), or (11) of this section.

(a) The ground water monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield ground water samples from the uppermost aquifer that:

(i) Represent the quality of background water that has not been affected by leakage from a regulated unit; and

(ii) Represent the quality of ground water passing the point of compliance.

(b) If a facility contains more than one regulated unit, separate ground water monitoring systems are not required for each regulated unit, provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point of dangerous constituents from the regulated units that have entered the ground water in the uppermost aquifer.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must allow collection of representative ground water samples. Wells must be constructed in such a manner as to prevent contamination of the samples, the sampled strata, and between aquifers and water bearing strata.

(d) The ground water monitoring program must include at a minimum, procedures and techniques for:

(i) Decontamination of drilling and sampling equipment;

(ii) Sample collection;

(iii) Sample preservation and shipment;

(iv) Analytical procedures and quality assurance; and

(v) Chain of custody control.

(e) The ground water monitoring program must include consistent sampling and analytical methods that ensure reliable ground water sampling, accurately measure dangerous constituents and indicator parameters in ground water samples, and provide a reliable indication of groundwater quality below the waste management area.

(f) The ground water monitoring program must include a determination of the ground water surface elevation each time ground water is sampled.

(g) Where appropriate, the ground water monitoring program must establish background ground water quality for each of the dangerous constituents or monitoring parameters or constituents specified in the permit.

(i) In the detection monitoring program under subsection (9) of this section, background ground water quality for a monitoring parameter or constituent must be based on data from quarterly sampling of wells upgradient from the waste management area for one year.

(ii) In the compliance monitoring program under subsection (10) of this section, background ground water quality for a dangerous constituent must be based on data from upgradient wells that:

(A) Is available before the permit is issued;

(B) Accounts for measurement errors in sampling and analysis; and

(C) Accounts, to the extent feasible, for seasonal fluctuations in background ground water quality if such fluctuations are expected to affect the concentration of the dangerous constituent.

(iii) Background ground water quality may be based on sampling of wells that are not upgradient from the waste management area where:

(A) Hydrogeologic conditions do not allow the owner or operator to determine what wells are upgradient; or

(B) Sampling at other wells will provide an indication of background ground water quality that is as representative or more representative than that provided by the upgradient wells.

(iv) In developing the data base used to determine a background value for each parameter or constituent, the owner or operator must take a minimum of one sample from each well and a minimum of four samples from the entire system used to determine background ground water quality, each time the system is sampled.

(h) The owner or operator must use the following statistical procedure in determining whether background values or concentration limits have been exceeded:

(i) If, in a detection monitoring program, the level of a constituent at the compliance point is to be compared to the constituent's background value and that background value has a sample coefficient of variation less than 1.00:

(A) The owner or operator must take at least four portions from a sample at each well at the compliance point and determine whether the difference between the mean of the constituent at each well (using all portions taken) and the background value for the constituent is significant at the 0.05 level using the Cochran's Approximation to the Behrens–Fisher Student's t–test as described in Appendix IV of 40 CFR Part 264. If the test indicates that the difference is significant, the owner or operator must repeat the same procedure (with at least the same number of portions as used in the first test) with a fresh sample from the monitoring well. If this second round of analyses indicates that the difference is

significant, the owner or operator must conclude that a statistically significant change has occurred; or

(B) The owner or operator may use an equivalent statistical procedure for determining whether a statistically significant change has occurred. The department will specify such a procedure in the facility permit if it finds that the alternative procedure reasonably balances the probability of falsely identifying a noncontaminating regulated unit and the probability of failing to identify a contaminating regulated unit in a manner that is comparable to that of the statistical procedure described in (h)(i)(A) of this subsection; and

(ii) In all other situations in a detection monitoring program and in a compliance monitoring program, the owner or operator must use a statistical procedure providing reasonable confidence that the migration of dangerous constituents from a regulated unit into and through the aquifer will be indicated. The department will specify a statistical procedure in the facility permit that it finds:

(A) Is appropriate for the distribution of the data used to establish background values or concentration limits; and

(B) Provides a reasonable balance between the probability of falsely identifying a noncontaminating regulated unit and the probability of failing to identify a contaminating regulated unit.

(9) Detection monitoring program. An owner or operator required to establish a detection monitoring program under this subsection must, at a minimum, discharge the responsibilities described in this subsection.

(a) The owner or operator must monitor for indicator parameters (e.g., pH, specific conductance, total organic carbon (TOC), total organic halogen (TOX), or heavy metals), waste constituents, or reaction products that provide a reliable indication of the presence of dangerous constituents in ground water. The department will specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

(i) The types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

(ii) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

(iii) The detectability of indicator parameters, waste constituents, and reaction products in ground water; and

(iv) The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the ground water background.

(b) The owner or operator must install a ground water monitoring system at the compliance point, as specified under subsection (6) of this section. The ground water monitoring system must comply with subsection (8)(a)(ii), (b), and (c) of this section.

(c) The owner or operator must establish a background value for each monitoring parameter or constituent specified in the permit pursuant to (a) of this subsection. The permit will specify the background values for each parameter or specify the procedures to be used to calculate the background values. The owner or operator must comply with subsection (8)(g) of this section, in developing the data base used to determine background values. The owner or operator must express background values in a form necessary for the determination of statistically significant increases under subsection (8)(h) of this section. In taking samples used in the determination of background values, the owner or operator must use a ground water monitoring system that complies with subsection (8)(a)(i), (b), and (c) of this section.

(d) The owner or operator must determine ground water quality at each monitoring well at the compliance point at least semiannually during the active life of a regulated unit (including the closure period) and the postclosure care period. The owner or operator must express the ground water quality at each monitoring well in a form necessary for the determination of statistically significant increases under subsection (8)(h) of this section.

(e) The owner or operator must determine the ground water flow rate and direction in the uppermost aquifer at least annually.

(f) The owner or operator must use procedures and methods for sampling and analysis that meet the requirements of subsection (8)(d) and (e) of this section.

(g) The owner or operator must determine whether there is a statistically significant increase over background values for any parameter or constituent specified in the permit pursuant to (a) of this subsection, each time he determines ground water quality at the compliance point under (d) of this subsection.

(i) In determining whether a statistically significant increase has occurred, the owner or operator must compare the ground water quality at each monitoring well at the compliance point for each parameter or constituent to the background value for that parameter or constituent, according to the statistical procedure specified in the permit under subsection (8)(h) of this section.

(ii) The owner or operator must determine whether there has been a statistically significant increase at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The department will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground water samples.

(h) If the owner or operator determines, pursuant to (g) of this subsection, that there is a statistically significant increase for parameters or constituents specified pursuant to (a) of this subsection, at any monitoring well at the compliance point, he must:

(i) Notify the department of this finding in writing within seven days. The notification must indicate what parameters or constituents have shown statistically significant increases;

(ii) Immediately sample the ground water in all monitoring wells and determine the concentration of all constituents identified in WAC 173-303-9905, and all other dangerous constituents not listed in WAC 173-303-9905 but which are specified in the facility permit

pursuant to subsection (4)(a) of this section, that are present in ground water;

(iii) Establish a background value for each constituent identified in WAC 173-303-9905, and all other dangerous constituents not listed in WAC 173-303-9905 but which are specified in the facility permit pursuant to subsection (4)(a) of this section, that has been found at the compliance point under (h)(ii) of this subsection, as follows:

(A) The owner or operator must comply with subsection (8)(g) of this section, in developing the data base used to determine background values;

(B) The owner or operator must express background values in a form necessary for the determination of statistically significant increases under subsection (8)(h) of this section; and

(C) In taking samples used in the determination of background values, the owner or operator must use a ground water monitoring system that complies with subsection (8)(a)(i), (b), and (c) of this section;

(iv) Within a maximum of forty-five days, submit to the department an application for a permit modification to establish a compliance monitoring program meeting the requirements of subsection (10) of this section. The application must include the following information:

(A) An identification of the concentration of any constituents identified in WAC 173-303-9905, and any other dangerous constituents not listed in WAC 173-303-9905 but which are specified in the facility permit pursuant to subsection (4)(a) of this section, found in the ground water at each monitoring well at the compliance point;

(B) Any proposed changes to the ground water monitoring system at the facility necessary to meet the requirements of subsection (10) of this section;

(C) Any proposed changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical procedures used at the facility necessary to meet the requirements of subsection (10) of this section;

(D) For each dangerous constituent found at the compliance point, a proposed concentration limit under subsection (5)(a)(i) or (ii) of this section, or a notice of intent to seek a variance under subsection (5)(b) of this section; and

(v) Within ninety days, submit to the department:

(A) All data necessary to justify any variance sought under subsection (5)(b) of this section; and

(B) An engineering feasibility plan necessary to meet the requirements of subsection (11) of this section, unless:

(I) All dangerous constituents identified under (h)(ii) of this subsection, are listed in Table 1 of subsection (5) of this section, and their concentrations do not exceed the respective values given in that table; or

(II) The owner or operator has sought a variance under subsection (5)(b) of this section, for every dangerous constituent identified under (h)(ii) of this subsection.

(i) If the owner or operator determines, pursuant to (g) of this subsection, that there is a statistically significant increase of parameters or constituents specified pursuant to (a) of this subsection, at any monitoring well at the compliance point, he may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under this subsection in addition to, or in lieu of, submitting a permit modification application under (h)(iv) of this subsection, he is not relieved of the requirement to submit a permit modification application within the time specified in (h)(iv) of this subsection, unless the demonstration made under this subsection successfully shows that a source other than his regulated unit(s) caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this subsection, the owner or operator must:

(i) Notify the department in writing within seven days of determining a statistically significant increase at the compliance point that he intends to make a demonstration under this subsection;

(ii) Within forty-five days, submit a report to the department which demonstrates that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation;

(iii) Within forty-five days, submit to the department an application for a permit modification to make any appropriate changes to the detection monitoring program at the facility; and

(iv) Continue to monitor in accordance with the detection monitoring program established under this section.

(j) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this section, he must, within forty-five days, submit an application for a permit modification to make any appropriate changes to the program.

(k) The owner or operator must assure that monitoring and corrective action measures necessary to achieve compliance with the ground water protection standard under subsection (3) of this section, are taken during the term of the permit.

(10) Compliance monitoring program. An owner or operator required to establish a compliance monitoring program under this section must, at a minimum, discharge the responsibilities described in this subsection.

(a) The owner or operator must monitor the ground water to determine whether regulated units are in compliance with the ground water protection standard under subsection (3) of this section. The department will specify the ground water protection standard in the facility permit, including:

(i) A list of the dangerous constituents and parameters identified under subsection (4) of this section;

(ii) Concentration limits under subsection (5) of this section for each of those dangerous constituents and parameters;

(iii) The compliance point under subsection (6) of this section; and

(iv) The compliance period under subsection (7) of this section.

(b) The owner or operator must install a ground water monitoring system at the compliance point as specified

under subsection (6) of this section. The ground water monitoring system must comply with subsection (8)(a)(ii), (b), and (c) of this section.

(c) Where a concentration limit established under (a)(ii) of this subsection, is based on background ground water quality, the department will specify the concentration limit in the permit as follows:

(i) If there is a high temporal correlation between upgradient and compliance point concentrations of the dangerous constituents and parameters, the owner or operator may establish the concentration limit through sampling at upgradient wells each time ground water is sampled at the compliance point. The department will specify the procedures used for determining the concentration limit in this manner in the permit. In all other cases, the concentration limit will be the mean of the pooled data on the concentration of the dangerous constituent or parameter;

(ii) If a dangerous constituent from Table 1 under subsection (5) of this section is identified and the difference between the respective concentration limit in Table 1 and the background value of that constituent under subsection (8)(g) of this section is not statistically significant, the owner or operator must use the background value of the constituent as the concentration limit. In determining whether this difference is statistically significant, the owner or operator must use an approved statistical procedure providing reasonable confidence that a real difference will be indicated. The statistical procedure must:

(A) Be appropriate for the distribution of the data used to establish background values; and

(B) Provide a reasonable balance between the probability of falsely identifying a significant difference and the probability of failing to identify a significant difference; and

(iii) The owner or operator must:

(A) Comply with subsection (8)(g) of this section, in developing the data base used to determine background values;

(B) Express background values in a form necessary for the determination of statistically significant increases under subsection (8)(h) of this section; and

(C) Use a ground water monitoring system that complies with subsection (8)(a)(i), (b), and (c) of this section.

(d) The owner or operator must determine the concentration of dangerous constituents and parameters in ground water at each monitoring well at the compliance point at least quarterly during the compliance period. The owner or operator must express the concentration at each monitoring well in a form necessary for the determination of statistically significant increases under subsection (8)(h) of this section.

(e) The owner or operator must determine the rate and direction of ground water flow in the uppermost aquifer at least annually.

(f) The owner or operator must analyze samples from all monitoring wells at the compliance point for constituents identified in WAC 173-303-9905, and any other dangerous constituents not listed in WAC 173-303-9905 but which are specified in the facility permit pursuant to subsection (4)(a) of this section at least annually to determine whether additional dangerous constituents are present in the uppermost aquifer. If the owner or operator finds constituents identified in WAC 173-303-9905, and any other dangerous constituents not listed in WAC 173-303-9905 but which are specified in the facility permit pursuant to subsection (4)(a) of this section in the ground water that are not identified in the permit as dangerous constituents, he must report the concentrations of these additional constituents to the department within seven days after completion of the analysis.

(g) The owner or operator must use procedures and methods for sampling and analysis that meet the requirements of subsection (8)(d) and (e) of this section.

(h) The owner or operator must determine whether there is a statistically significant increase over the concentration limits for any dangerous constituents specified in the permit each time he determines the concentration of dangerous constituents in ground water at the compliance point.

(i) In determining whether a statistically significant increase has occurred, the owner or operator must compare the ground water quality at each monitoring well at the compliance point for each dangerous constituent to the concentration limit for that constituent according to the statistical procedures specified in the permit under subsection (8)(h) of this section.

(ii) The owner or operator must determine whether there has been a statistically significant increase at each monitoring well at the compliance point, within a reasonable time period after completion of sampling. The department will specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground water samples.

(i) If the owner or operator determines, pursuant to (h) of this subsection, that the ground water protection standard is being exceeded at any monitoring well at the point of compliance, he must:

(i) Notify the department of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded;

(ii) Submit to the department an application for a permit modification to establish a corrective action program meeting the requirements of subsection (11) of this section, within ninety days, or within sixty days if an engineering feasibility study has been previously submitted to the department under subsection (9)(h)(v) of this section. For regulated units managing EHW, time frames of sixty days and forty-five days, respectively will apply. However, if the department finds that the full extent of the ninety/sixty-day or the sixty/forty-five-day time periods will increase the likelihood to cause a threat to public health, or the environment, it can at its discretion reduce their duration. In specifying shorter limits, the department will consider the following factors:

(A) The physical and chemical characteristics of the dangerous constituents and parameters in the ground water;

(B) The hydrogeological characteristics of the facility and of the surrounding land;

(C) The rate of movement and direction of flow of the affected ground water;

(D) The proximity to and withdrawal rates of ground water users downgradient; and

(E) The current and future uses of ground water in the concerned area; and

(iii) The application must at a minimum include the following information:

(A) A detailed description of corrective actions that will achieve compliance with the ground water protection standard specified in the permit; and

(B) A plan for a ground water monitoring program that will demonstrate the effectiveness of the corrective action.

(j) If the owner or operator determines, pursuant to (h) of this subsection, that the ground water protection standard is being exceeded at any monitoring well at the point of compliance, he may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under this subsection in addition to, or in lieu of, submitting a permit modification application under (i)(ii) of this subsection, he is not relieved of the requirement to submit a permit modification application within the time specified in (i)(ii) of this subsection, unless the demonstration made under this paragraph successfully shows that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this subsection, the owner or operator must:

(i) Notify the department in writing within seven days that he intends to make a demonstration under this subsection;

(ii) Within forty-five days, submit a report to the department which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

(iii) Within forty-five days, submit to the department an application for a permit modification to make appropriate changes to the compliance monitoring program at the facility; and

(iv) Continue to monitor in accord with the compliance monitoring program established under this section.

(k) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this section, he must, within forty-five days, submit an application for a permit modification to make any appropriate changes to the program.

(l) The owner or operator must assure that monitoring and corrective action measures necessary to achieve compliance with the ground water protection standard under subsection (3) of this section, are taken during the term of the permit.

(11) Corrective action program. An owner or operator required to establish a corrective action program under this section must, at a minimum, discharge the responsibilities described in this subsection.

(a) The owner or operator must take corrective action to ensure that regulated units are in compliance with the ground water protection standard under subsection (3) of this section. The department will specify the ground water protection standard in the facility permit, including:

(i) A list of the dangerous constituents and parameters identified under subsection (4) of this section;

(ii) Concentration limits under subsection (5) of this section, for each of those dangerous constituents and parameters;

(iii) The compliance point under subsection (6) of this section; and

(iv) The compliance period under subsection (7) of this section.

(b) The owner or operator must implement a corrective action program that prevents dangerous constituents and parameters from exceeding their respective concentration limits at the compliance point by removing the dangerous waste constituents and parameters or treating them in place. The permit will specify the specific measures that will be taken.

(c) The owner or operator must begin corrective action within a reasonable time period after the ground water protection standard is exceeded. The department will specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit will specify when the corrective action will begin and such a requirement will operate in lieu of subsection (10)(i)(ii) of this section.

(d) In conjunction with a corrective action program, the owner or operator must establish and implement a ground water monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under subsection (10) of this section, and must be as effective as that program in determining compliance with the ground water protection standard under subsection (3) of this section, and in determining the success of a corrective action program under (e) of this subsection, where appropriate.

(e) In addition to the other requirements of this section, the owner or operator must conduct a corrective action program to remove or treat in place any dangerous constituents or parameters under subsection (4) of this section, that exceed concentration limits under subsection (5) of this section, in ground water between the compliance point under subsection (6) of this section, and the downgradient facility property boundary. The permit will specify the measures to be taken.

(i) Corrective action measures under this subsection must be initiated at the effective date of the modified permit and completed without time delays considering the extent of contamination.

(ii) Corrective action measures under this subsection may be terminated once the concentration of dangerous constituents and parameters under subsection (4) of this section, is reduced to levels below their respective concentration limits under subsection (5) of this section.

(f) The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the ground water protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he must continue that corrective action for as long as necessary to achieve compliance with the ground water protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if he can demonstrate, based on data from the ground water monitoring program under (d) of this subsection, that the ground water protection standard of subsection (3) of this section, has not been exceeded for a period of three consecutive years.

(g) The owner or operator must report in writing to the department on the effectiveness of the corrective action program. The owner or operator must submit these reports semiannually.

(h) If the owner or operator determines that the corrective action program no longer satisfies the requirements of this section, he must, within forty-five days, submit an application for a permit modification to make any appropriate changes to the program. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-645, filed 4/18/84.]

WAC 173-303-650 Surface impoundments. (1) Applicability. The regulations in this section apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of dangerous waste.

(2) Design and operating requirements.

(a)(i) A surface impoundment (except for an existing portion of a surface impoundment) must have a liner that is designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner (but not into the adjacent subsurface soil or ground water or surface water) during the active life of the facility, provided that the impoundment is closed in accordance with subsection (6)(a)(i) of this section. For impoundments that will be closed in accordance with subsection (6)(a)(ii) of this section, the liner must be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner must be:

(A) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(B) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift;

(C) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(D) For EHW management, the owner or operator shall submit an engineering report with his permit application under WAC 173-303-806(4) stating the basis for selecting the liner(s). The report shall be certified by a licensed professional engineer.

(ii) The owner or operator of a new surface impoundment installed after October 31, 1984, and in which liquid EHW is managed must:

(A) Install a double lined system which incorporates the specifications of subsection (3)(a), (b), and (c) of this section; and

(B) Must comply with either the ground water monitoring requirements of WAC 173-303-645, or the unsaturated zone monitoring requirements of WAC 173-303-655(6).

(b) The owner or operator will be exempted from the requirements of (a) of this subsection, if the department finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any dangerous constituents listed in WAC 173-303-9905, or which otherwise cause his wastes to be regulated under this chapter, into the ground water or surface water at any future time. In deciding whether to grant an exemption, the department will consider:

(i) The nature and quantity of the wastes;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the impoundment and ground water or surface water; and

(iv) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) A surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error.

(d) A surface impoundment must be designed so that any flow of waste into the impoundment can be immediately shut off in the event of overtopping or liner failure.

(e) A surface impoundment must be designed to repel birds.

(f) A surface impoundment shall be located so as to meet the buffer zone requirements of WAC 173-303-440.

(g) A surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent their failure. In ensuring structural integrity, it must not be presumed that the

liner system will function without leakage during the active life of the unit.

(h) Earthen dikes must be kept free of:

(i) Perennial woody plants with root systems which could weaken its structural integrity; and

(ii) Burrowing mammals which could weaken its structural integrity or create leaks through burrows.

(i) Earthen dikes must have a protective cover, such as grass, shale or rock to minimize wind and water erosion and to preserve their structural integrity.

(j) The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this subsection are satisfied.

(3) Double-lined surface impoundments; exemption from WAC 173-303-645, ground water protection requirements.

(a) Except as provided in subsection (2)(a)(ii) of this section, the owner or operator of a double-lined surface impoundment is not subject to regulation under WAC 173-303-645 if the following conditions are met:

(i) The impoundment (including its underlying liners) must be located entirely above the seasonal high water table;

(ii) The impoundment must be underlain by two liners which are designed and constructed in a manner that prevents the migration of liquids into or out of the space between the liners. Both liners must meet all the specifications of subsection (2)(a)(i) of this section;

(iii) A leak detection system must be designed, constructed, maintained, and operated between the liners to detect any migration of liquids into the space between the liners; and

(iv) A leachate detection, collection and removal system must be designed and operated to remove accumulated liquids from the system as quickly as possible so as to avoid unnecessary buildup of hydrostatic pressure in the system.

(b) If liquid leaks into the leak detection system, the owner or operator must:

(i) Notify the department of the leak in writing within seven days after detecting the leak; and

(ii)(A) Within a period of time specified in the permit, remove accumulated liquid, repair or replace the liner which is leaking to prevent the migration of liquids through the liner, and obtain a certification from a qualified engineer that, to the best of his knowledge and opinion, the leak has been stopped; or

(B) If a detection monitoring program pursuant to WAC 173-303-645(9) has already been established in the permit (to be complied with only if a leak occurs), begin to comply with that program and any other applicable requirements of WAC 173-303-645 within the period of time specified in the permit.

(c) The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

(4) Monitoring and inspection.

(a) During construction and installation, liners (except in the case of existing portions of surface impoundments exempt from subsection (2)(a)(i) of this section) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

(i) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(ii) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural nonuniformities that may cause an increase in the permeability of the liner or cover.

(b) While a surface impoundment is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(i) Deterioration, malfunctions, or improper operation of overtopping control systems;

(ii) Sudden drops in the level of the impoundment's contents;

(iii) The presence of liquids in leak detection systems, where installed to comply with subsection (3) of this section; and

(iv) Severe erosion or other signs of deterioration in dikes or other containment devices.

(c) Prior to the issuance of a permit, and after any extended period of time (at least six months) during which the impoundment was not in service, the owner or operator must obtain a certification from a qualified engineer that the impoundment's dike, including that portion of any dike which provides freeboard, has structural integrity. The certification must establish, in particular, that the dike:

(i) Will withstand the stress of the pressure exerted by the types and amounts of wastes to be placed in the impoundment; and

(ii) Will not fail due to scouring or piping, without dependence on any liner system included in the surface impoundment construction.

(5) Emergency repairs; contingency plans.

(a) A surface impoundment must be removed from service in accordance with (b) of this subsection when:

(i) Unexpected changes of liquid levels occur; or

(ii) The dike leaks.

(b) When a surface impoundment must be removed from service as required by (a) of this subsection, the owner or operator must:

(i) Immediately shut off the flow or stop the addition of wastes into the impoundment;

(ii) Immediately contain any surface leakage which has occurred or is occurring;

(iii) Immediately stop the leak;

(iv) Take any other necessary steps to stop or prevent catastrophic failure;

(v) Empty the impoundment, if a leak cannot be stopped by any other means; and

(vi) Notify the department of the problem in writing within seven days after detecting the problem.

(c) As part of the contingency plan required in WAC 173-303-340 through 173-303-360, the owner or operator must specify:

(i) A procedure for complying with the requirements of (b) of this subsection; and

(ii) A containment system evaluation and repair plan describing: Testing and monitoring techniques; procedures to be followed to evaluate the integrity of the containment system in the event of a possible failure; description of a schedule of actions to be taken in the event of a possible failure; and the repair techniques and materials (and their availability) to be used in the event of leakage due to containment system failure or deterioration which does not require the impoundment to be removed from service.

(d) No surface impoundment that has been removed from service in accordance with the requirements of this section may be restored to service unless the portion of the impoundment which was failing is repaired and the following steps are taken:

(i) If the impoundment was removed from service as the result of actual or imminent dike failure, the dike's structural integrity must be recertified in accordance with subsection (4)(c) of this section;

(ii) If the impoundment was removed from service as the result of a sudden drop in the liquid level, then:

(A) For any existing portion of the impoundment, a liner must be installed in compliance with subsection (2)(a)(i) or (3) of this section; and

(B) For any other portion of the impoundment, the repaired liner system must be certified by a qualified engineer as meeting the design specifications approved in the permit.

(e) A surface impoundment that has been removed from service in accordance with the requirements of this section and that is not being repaired must be closed in accordance with the provisions of subsection (6) of this section.

(6) Closure and postclosure care.

(a) At closure, the owner or operator must:

(i) Remove or decontaminate all dangerous waste and dangerous waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with dangerous waste and leachate, and manage them as dangerous waste; or

(ii) If the surface impoundment will be closed as a landfill, except that this option is prohibited if EHW would remain in the closed unit(s):

(A) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(B) Stabilize remaining wastes to a bearing capacity sufficient to support a final cover; and

(C) Cover the surface impoundment with a final cover designed and constructed to:

(I) Provide long-term minimization of the migration of liquids through the closed impoundment with a material that has a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present;

(II) Function with minimum maintenance;

(III) Promote drainage and minimize erosion or abrasion of the final cover; and

(IV) Accommodate settling and subsidence so that the cover's integrity is maintained.

(b) If some waste residues or contaminated materials are left in place at final closure (except that no EHW may ever be left in place), the owner or operator must comply with all postclosure requirements contained in WAC 173-303-610 (7), (8), (9), and (10), including maintenance and monitoring throughout the postclosure care period (specified in the permit). The owner or operator must:

(i) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(ii) Maintain and monitor the leak detection system in accordance with subsection (3) of this section, where such a system is present between double liner systems;

(iii) Maintain and monitor the ground water monitoring system and comply with all applicable requirements of WAC 173-303-645; and

(iv) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

(c)(i) If an owner or operator plans to close a surface impoundment in accordance with (a)(i) of this subsection, and the impoundment does not comply with the liner requirements of subsection (2)(a)(i) of this section, and is not exempt from them in accordance with subsection (2)(b) of this section, then:

(A) The closure plan for the impoundment under WAC 173-303-610(3) must include both a plan for complying with (a)(i) of this subsection, and a contingent plan for complying with (a)(ii) of this subsection in case not all contaminated subsoils can be practicably removed at closure; and

(B) The owner or operator must prepare a contingent postclosure plan under WAC 173-303-610(8) for complying with (b) of this subsection in case not all contaminated subsoils can be practicably removed at closure.

(ii) The cost estimates calculated under WAC 173-303-620 (3) and (5) for closure and postclosure care of an impoundment subject to (c) of this subsection must include the cost of complying with the contingent closure plan and the contingent postclosure plan, but are not required to include the cost of expected closure under (a)(i) of this subsection.

(d) During the postclosure care period, if liquids leak into a leak detection system installed under subsection (3) of this section, the owner or operator must notify the department of the leak in writing within seven days after detecting the leak. The department will then modify the permit to require compliance with applicable requirements of WAC 173-303-645, or, if so requested by the owner or operator, to require removal of all materials in accordance with (a)(i) of this subsection.

(7) Special requirements for ignitable or reactive waste. Ignitable or reactive waste must not be placed in a surface impoundment, unless:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(i) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under WAC 173-303-090; and

(ii) WAC 173-303-395 (1)(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

(c) The surface impoundment is used solely for emergencies.

(8) Special requirements for incompatible wastes. Incompatible wastes and materials must not be placed in the same surface impoundment, unless WAC 173-303-395 (1)(b) is complied with.

(9) Special requirements for dangerous wastes F020, F021, F022, F023, F026, and F027.

(a) The wastes F020, F021, F022, F023, F026, or F027 must not be placed in a surface impoundment unless the owner or operator operates the surface impoundment in accordance with a management plan for these wastes that is approved by the department pursuant to the standards set out in this subsection, and in accord with all other applicable requirements of this section. The factors to be considered are:

(i) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(ii) The attenuative properties of underlying and surrounding soils or other materials;

(iii) The mobilizing properties of other materials co-disposed with these wastes; and

(iv) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The department may determine that additional design, operating, and monitoring requirements are necessary in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-650, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-650, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-650, filed 2/10/82.]

WAC 173-303-655 Land treatment. (1) Applicability. The regulations in this subpart apply to owners and operators of facilities that treat or dispose of dangerous waste in land treatment units, except as WAC 173-303-600 provides otherwise.

(2) Treatment program.

(a) An owner or operator subject to this section must establish a land treatment program that is designed to ensure that dangerous constitutents placed in or on the treatment zone are degraded, transformed, or immobilized within the treatment zone. The department will specify in the facility permit the elements of the treatment program, including:

(i) The wastes that are capable of being treated at the unit based on a demonstration under subsection (3) of this section;

(ii) Design measures and operating practices necessary to maximize the success of degradation, transformation, and immobilization processes in the treatment zone in accordance with subsection (4)(a) of this section; and

(iii) Unsaturated zone monitoring provisions meeting the requirements of subsection (6) of this section.

(b) The department will specify in the facility permit the dangerous constituents that must be degraded, transformed, or immobilized under this section. Dangerous constituents are constituents identified in WAC 173-303-9905, and any other constituents which, although not listed in WAC 173-303-9905, cause a waste to be regulated under this chapter, that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(c) The department will specify the vertical and horizontal dimensions of the treatment zone in the facility permit. The treatment zone is the portion of the unsaturated zone below, and including, the land surface in which the owner or operator intends to maintain the conditions necessary for effective degradation, transformation, or immobilization of dangerous constituents. The maximum depth of the treatment zone must be:

(i) No more than 1.5 meters (5 feet) below the initial soil surface; and

(ii) More than 3 meters (10 feet) above the seasonal high water table; except that the owner or operator may demonstrate to the satisfaction of the department that a distance of less than 3 meters will be adequate. In no case shall the distance be less than 1 meter.

(3) Treatment demonstration.

(a) For each waste that will be applied to the treatment zone, the owner or operator must demonstrate, prior to application of the waste, that dangerous constitutents in the waste can be completely degraded, transformed, or immobilized in the treatment zone.

(b) In making this demonstration, the owner or operator may use field tests, laboratory analyses, available data, or, in the case of existing units, operating data. If the owner or operator intends to conduct field tests or laboratory analyses in order to make the demonstration required under (a) of this subsection, he must obtain a land treatment demonstration permit under WAC 173-303-808. The department will specify in this permit the testing, analytical, design, and operating requirements (including the duration of the tests and analyses, and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone, monitoring procedures, closure, and clean-up activities) necessary to meet the requirements in (c) of this subsection.

(c) Any field test or laboratory analysis conducted in order to make a demonstration under (a) of this subsection must:

(i) Accurately simulate the characteristics and operating conditions for the proposed land treatment unit including:

(A) The characteristics of the waste and of dangerous constituents present;

(B) The climate in the area;

(C) The topography of the surrounding area;

(D) The characteristics and depth of the soil in the treatment zone; and

(E) The operating practices to be used at the unit;

(ii) Be likely to show that dangerous constituents in the waste to be tested will be completely degraded, transformed, or immobilized in the treatment zone of the proposed land treatment unit; and

(iii) Be conducted in a manner that protects human health and the environment considering:

(A) The characteristics of the waste to be tested;

(B) The operating and monitoring measures taken during the course of the test;

(C) The duration of the test;

(D) The volume of waste used in the test; and

(E) In the case of field tests, the potential for migration of dangerous constituents to ground water or surface water.

(4) Design and operating requirements. The department will specify in the facility permit how the owner or operator will design, construct, operate, and maintain the land treatment unit in compliance with this subsection.

(a) The owner or operator must design, construct, operate, and maintain the unit to maximize the degradation, transformation, and immobilization of dangerous constituents in the treatment zone. The owner or operator must design, construct, operate, and maintain the unit in accordance with all design and operating conditions that were used in the treatment demonstration under subsection (3) of this section. At a minimum, the department will specify in the facility permit:

(i) The rate and method of waste application to the treatment zone;

(ii) Measures to control soil pH;

(iii) Measures to enhance microbial or chemical reactions (e.g., fertilization, tilling); and

(iv) Measures to control the moisture content of the treatment zone.

(b) The owner or operator must design, construct, operate, and maintain the treatment zone to minimize run-off of dangerous constituents during the active life of the land treatment unit.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the treatment zone during peak discharge from at least a twenty-five-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously and in accordance with this chapter after storms to maintain the design capacity of the system.

(f) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must control wind dispersal.

(g) The owner or operator must inspect the unit weekly and after storms to detect evidence of:

(i) Deterioration, malfunctions, or improper operation of run-on and run-off control systems; and

(ii) Improper functioning of wind dispersal control measures.

(5) Food chain crops. The department may allow the growth of food chain crops in or on the treatment zone only if the owner or operator satisfies the conditions of this subsection. The department will specify in the facility permit the specific food chain crops which may be grown.

(a)(i) The owner or operator must demonstrate that there is no substantial risk to human health caused by the growth of such crops in or on the treatment zone by demonstrating, prior to the planting of such crops, that dangerous constituents other than cadmium:

(A) Will not be transferred to the food or feed portions of the crop by plant uptake or direct contact, and will not otherwise be ingested by food chain animals (e.g., by grazing); or

(B) Will not occur in greater concentrations in or on the food or feed portions of crops grown on the treatment zone than in or on identical portions of the same crops grown on untreated soils under similar conditions in the same region.

(ii) The owner or operator must make the demonstration required under (a)(i) of this subsection prior to the planting of crops at the facility for all dangerous constituents that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(iii) In making such a demonstration, the owner or operator may use field tests, greenhouse studies, available data, or, in the case of existing units, operating data, and must:

(A) Base the demonstration on conditions similar to those present in the treatment zone, including soil characteristics (e.g., pH, cation exchange capacity), specific wastes, application rates, application methods, and crops to be grown; and

(B) Describe the procedures used in conducting any tests, including the sample selection criteria, sample size, analytical methods, and statistical procedures.

(iv) If the owner or operator intends to conduct field tests or greenhouse studies in order to make the demonstration he must obtain a permit for conducting such activities.

(b) The owner or operator must comply with the following conditions if cadmium is contained in wastes applied to the treatment zone;

(i)(A) The pH of the waste and soil mixture must be 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less;

(B) The annual application of cadmium from waste must not exceed 0.5 kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food chain crops, the annual cadmium application rate must not exceed:

Time period	Annual Cd application rate (kilograms per hectare)
Present to June 30, 1984	2.0
July 1, 1984 to Dec. 31, 1986	1.25
Beginning Jan. 1, 1987	0.5

(C) The cumulative application of cadmium from waste must not exceed 5kg/ha if the waste and soil mixture has a pH of less than 6.5; and

(D) If the waste and soil mixture has a pH of 6.5 or greater or is maintained at a pH of 6.5 or greater during crop growth, the cumulative application of cadmium from waste must not exceed: 5 kg/ha if soil cation exchange capacity (CEC) is less than 5 meq/100g; 10 kg/ha if soil CEC is 5–15 meq/100g; and 20 kg/ha if soil CEC is greater than 15 meq/100g; or

(ii)(A) Animal feed must be the only food chain crop produced;

(B) The pH of the waste and soil mixture must be 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level must be maintained whenever food chain crops are grown;

(C) There must be an operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The operating plan must describe the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses; and

(D) Future property owners must be notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops must not be grown except in compliance with (b)(ii) of this subsection.

(6) Unsaturated zone monitoring. An owner or operator subject to this section must establish an unsaturated zone monitoring program to discharge the responsibilities described in this subsection.

(a) The owner or operator must monitor the soil and soil–pore liquid to determine whether dangerous constituents migrate out of the treatment zone.

(i) The department will specify the dangerous constituents to be monitored in the facility permit. The dangerous constituents to be monitored are those specified under subsection (2)(b) of this section.

(ii) The department may require monitoring for principal dangerous constituents (PDCs) in lieu of the constituents specified under subsection (2)(b) of this section. PDCs are dangerous constituents contained in the wastes to be applied at the unit that are the most difficult to treat, considering the combined effects of degradation, transformation, and immobilization. The department will establish PDCs if it finds, based on waste analyses, treatment demonstrations, or other data, that effective degradation, transformation, or immobilization of the PDCs will assure treatment at at least equivalent levels for the other dangerous constituents in the wastes.

(b) The owner or operator must install an unsaturated zone monitoring system that includes soil monitoring using soil cores and soil–pore liquid monitoring using devices such as lysimeters. The unsaturated zone monitoring system must consist of a sufficient number of sampling points at appropriate locations and depths to yield samples that:

(i) Represent the quality of background soil–pore liquid quality and the chemical make–up of soil that has not been affected by leakage from the treatment zone; and

(ii) Indicate the quality of soil–pore liquid and the chemical make–up of the soil below the treatment zone.

(c) The owner or operator must establish a background value for each dangerous constituent to be monitored under (a) of this subsection. The permit will specify the background values for each constituent or specify the procedures to be used to calculate the background values.

(i) Background soil values may be based on a one–time sampling at a background plot having characteristics similar to those of the treatment zone.

(ii) Background soil–pore liquid values must be based on at least quarterly sampling for one year at a background plot having characteristics similar to those of the treatment zone.

(iii) The owner or operator must express all background values in a form necessary for the determination of statistically significant increases under (f) of this subsection.

(iv) In taking samples used in the determination of all background values, the owner or operator must use an unsaturated zone monitoring system that complies with (b)(i) of this subsection.

(d) The owner or operator must conduct soil monitoring and soil–pore liquid monitoring immediately below the treatment zone. The department will specify the frequency and timing of soil and soil–pore liquid monitoring in the facility permit after considering the frequency, timing, and rate of waste application, and the soil permeability. The owner or operator must express the results of soil and soil–pore liquid monitoring in a form necessary for the determination of statistically significant increases under (f) of this subsection.

(e) The owner or operator must use consistent sampling and analysis procedures that are designed to ensure sampling results that provide a reliable indication of soil–pore liquid quality and the chemical make–up of the soil below the treatment zone. At a minimum, the owner or operator must implement procedures and techniques for:

(i) Sample collection;

(ii) Sample preservation and shipment;

(iii) Analytical procedures; and

(iv) Chain of custody control.

(f) The owner or operator must determine whether there is a statistically significant change over background values for any dangerous constituent to be monitored under (a) of this subsection, below the treatment

zone each time he conducts soil monitoring and soil-pore liquid monitoring under (d) of this subsection.

(i) In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent, as determined under (d) of this subsection, to the background value for that constituent according to the statistical procedure specified in the facility permit under this subsection.

(ii) The owner or operator must determine whether there has been a statistically significant increase below the treatment zone within a reasonable time period after completion of sampling. The department will specify that time period in the facility permit after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of soil and soil-pore liquid samples.

(iii) The owner or operator must determine whether there is a statistically significant increase below the treatment zone using a statistical procedure that provides reasonable confidence that migration from the treatment zone will be identified. The department will specify a statistical procedure in the facility permit that it finds:

(A) Is appropriate for the distribution of the data used to establish background values; and

(B) Provides a reasonable balance between the probability of falsely identifying migration from the treatment zone and the probability of failing to identify real migration from the treatment zone.

(g) If the owner or operator determines, pursuant to (f) of this subsection, that there is a statistically significant increase of dangerous constituents below the treatment zone, he must:

(i) Notify the department of his finding in writing within seven days. The notification must indicate what constituents have shown statistically significant increases;

(ii) Within forty-five days, submit to the department an application for a permit modification to amend the operating practices at the facility in order to maximize the success of degradation, transformation, or immobilization processes in the treatment zone; and

(iii) Continue to monitor in accordance with the unsaturated zone monitoring program established under this subsection.

(h) If the owner or operator determines, pursuant to (f) of this subsection, that there is a statistically significant increase of dangerous constituents below the treatment zone, he may demonstrate that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under this subsection, he is not relieved of the requirement to submit concurrently a permit modification application within the forty-five-day period, unless the demonstration made under this subsection successfully shows that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under this subsection, the owner or operator must:

(i) Notify the department in writing within seven days of determining a statistically significant increase below the treatment zone that he intends to make a demonstration under this subsection;

(ii) Within forty-five days, submit a report to the department demonstrating that a source other than the regulated units caused the increase or that the increase resulted from error in sampling, analysis, or evaluation;

(iii) Within forty-five days, submit to the department an application for a permit modification to make any appropriate changes to the unsaturated zone monitoring program at the facility; and

(iv) Continue to monitor in accordance with the unsaturated zone monitoring program established under this subsection.

(7) Recordkeeping. The owner or operator must include dangerous waste application dates and rates in the operating record required under WAC 173-303-380.

(8) Closure and postclosure care.

(a) During the closure period the owner or operator must:

(i) Continue all operations (including pH control) necessary to maximize degradation, transformation, or immobilization of dangerous constituents within the treatment zone as required under subsection (4)(a) of this section, except to the extent such measures are inconsistent with (a)(viii) of this subsection;

(ii) Continue all operations in the treatment zone to minimize run-off of dangerous constituents as required under subsection (4)(b) of this section;

(iii) Maintain the run-on control system required under subsection (4)(c) of this section;

(iv) Maintain the run-off management system required under subsection (4)(d) of this section;

(v) Control wind dispersal of dangerous waste if required under subsection (4)(f) of this section;

(vi) Continue to comply with any prohibitions or conditions concerning growth of food chain crops under subsection (5) of this section;

(vii) Continue unsaturated zone monitoring in compliance with subsection (6) of this section, except that soil-pore liquid monitoring may be terminated ninety days after the last application of waste to the treatment zone; and

(viii) Establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of dangerous constituents in the treatment zone. The vegetative cover must be capable of maintaining growth without extensive maintenance.

(b) For the purpose of complying with WAC 173-303-610(6) when closure is completed, the owner or operator may submit to the department a certification by an independent qualified soil scientist, in lieu of a licensed professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(c) During the postclosure care period the owner or operator must:

(i) Continue all operations (including pH control) necessary to enhance degradation and transformation

and sustain immobilization of dangerous constituents in the treatment zone to the extent that such measures are consistent with other postclosure care activities;

(ii) Maintain a vegetative cover over closed portions of the facility;

(iii) Maintain the run-on control system required under subsection (4)(c) of this section;

(iv) Maintain the run-off management system required under subsection (4)(d) of this section;

(v) Control wind dispersal of dangerous waste, if required under subsection (4)(f) of this section;

(vi) Continue to comply with any prohibitions or conditions concerning growth of food chain crops under subsection (5) of this section; and

(vii) Continue unsaturated zone monitoring in compliance with subsection (6) of this section, except that soil-pore liquid monitoring may be terminated one hundred eighty days after the last application of waste to the treatment zone.

(d) The owner or operator is not subject to regulation under (a)(viii) and (c) of this subsection, if the department finds that the level of dangerous constituents in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant when using the test specified in (d)(iii) of this subsection. The owner or operator may submit such a demonstration to the department at any time during the closure or postclosure care periods. For the purposes of this subsection:

(i) The owner or operator must establish background soil values and determine whether there is a statistically significant increase over those values for all dangerous constituents specified in the facility permit under subsection (2)(b) of this section;

(A) Background soil values may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone;

(B) The owner or operator must express background values and values for dangerous constituents in the treatment zone in a form necessary for the determination of statistically significant increases under (d)(iii) of this subsection;

(ii) In taking samples used in the determination of background and treatment zone values, the owner or operator must take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively;

(iii) In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator must use a statistical procedure that:

(A) Is appropriate for the distribution of the data used to establish background values; and

(B) Provides a reasonable balance between the probability of falsely identifying dangerous constituent presence in the treatment zone and the probability of failing to identify real presence in the treatment zone.

(e) The owner or operator is not subject to regulation under WAC 173-303-645 if the department finds that the owner or operator satisfies (d) of this subsection, and if unsaturated zone monitoring under subsection (6) of this section, indicates that dangerous constituents have not migrated beyond the treatment zone during the active life of the land treatment unit.

(9) Special requirements for ignitable or reactive waste. The owner or operator must not apply ignitable or reactive waste to the treatment zone unless:

(a) The waste is immediately incorporated into the soil so that:

(i) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under WAC 173-303-090 (5) and (7); and

(ii) WAC 173-303-395 is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

(10) Special requirements for incompatible wastes. The owner or operator must not place incompatible wastes, or incompatible wastes and materials, in or on the same treatment zone, unless WAC 173-303-395 (1)(b) is complied with.

(11) Special requirements for extremely hazardous waste. Under no circumstances will EHW be allowed to remain in a closed land treatment unit after concluding the postclosure care period. If EHW remains at the end of the scheduled postclosure care period specified in the permit, then the department will either extend the postclosure care period, or require that all EHW be disposed of off-site or that it be treated. In deciding whether to extend postclosure care or require disposal or treatment, the department will take into account the likelihood that the waste will or will not continue to degrade in the land treatment unit to the extent that it is no longer EHW. For the purposes of this subsection, EHW will be considered to remain in a land treatment unit if representative samples of the treatment zone are designated as EHW. Procedures for representative sampling and testing will be specified in the permit.

(12) Special requirements for dangerous wastes F020, F021, F022, F023, F026, and F027.

(a) Dangerous wastes F020, F021, F022, F023, F026, or F027 must not be placed in a land treatment unit unless the owner or operator operates the facility in accordance with a management plan for these wastes that is approved by the department pursuant to the standards set out in this subsection and in accord with all other applicable requirements of this chapter. The factors to be considered are:

(i) The volume, physical, and chemical characteristics of the wastes including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(ii) The attenuative properties of underlying and surrounding soils or other materials;

(iii) The mobilizing properties of other materials co-disposed with these wastes; and

(iv) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The department may determine that additional design, operating, and monitoring requirements are necessary for land treatment facilities managing dangerous wastes F020, F021, F022, F023, F026, or F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-655, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-655, filed 4/18/84.]

WAC 173-303-660 Waste piles. (1) Applicability.

(a) The regulations in this section apply to owners and operators of facilities that store or treat dangerous waste in piles.

(b) The regulations in this section do not apply to owners or operators of waste piles that will be closed with wastes left in place. Such waste piles are subject to regulation under WAC 173-303-665 (Landfills).

(c) The owner or operator of any waste pile that is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated is not subject to regulation under subsection (2) of this section, or under WAC 173-303-645, provided that:

(i) Liquids or materials containing free liquids are not placed in the pile;

(ii) The pile is protected from surface water run-on by the structure or in some other manner;

(iii) The pile is designed and operated to control dispersal of the waste by wind, by means other than wetting; and

(iv) The pile will not generate leachate through decomposition or other reactions.

(d) All EHW and respiratory carcinogens stored in waste piles must be protected from dispersal by precipitation or wind (e.g., covered, stored inside a building, etc.).

(2) Design and operating requirements.

(a) A waste pile (except for an existing portion of a waste pile) must have:

(i) A liner that is designed, constructed, installed and maintained to prevent any migration of wastes out of the pile into the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself (but not into the adjacent subsurface soil or ground water or surface water) during the active life of the facility. The liner must be:

(A) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(B) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(C) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(ii) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the pile. The department will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(A) Constructed of materials that are:

(I) Chemically resistant to the waste managed in the pile and to the leachate expected to be generated; and

(II) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying wastes, waste cover materials, and by any equipment used at the pile; and

(B) Designed and operated to function without clogging through the scheduled closure of the waste pile.

(b) A liner and leachate collection and removal system must be protected from plant growth which could adversely affect any component of the system.

(c) For EHW management, the owner or operator shall submit an engineering report with his permit application stating the basis for selecting the liner required in subsection (2)(a)(i) of this section. The statement shall be certified by a licensed professional engineer.

(d) The owner or operator will be exempted from the requirements of (a), (b), and (c) of this subsection, if the department finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any dangerous constituents identified under WAC 173-303-645(4) into the ground water or surface water at any future time. In deciding whether to grant an exemption, the department will consider:

(i) The nature and quantity of the wastes;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including attenuative capacity and thickness of the liners and soils present between the pile and ground water or surface water; and

(iv) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(e) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto any portion of the pile during peak discharge from at least a twenty-five-year storm.

(f) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.

(g) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously

and in accordance with this chapter after storms to maintain design capacity of the system.

(h) If the pile contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the pile to control wind dispersal.

(i) The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this subsection are satisfied.

(3) Double-lined piles; exemption from WAC 173-303-645, ground water protection requirements.

(a) The owner or operator of a double-lined waste pile is not subject to regulation under WAC 173-303-645 if the following conditions are met:

(i) The pile (including its underlying liners) must be located entirely above the seasonal high water table;

(ii) The pile must be underlain by two liners which are designed and constructed in a manner that prevents the migration of liquids into or out of the space between the liners. Both liners must meet all the specifications of subsection (2)(a)(i) and (c) of this section;

(iii) A leak detection system must be designed, constructed, maintained, and operated between the liners to detect any migration of liquids into the space between the liners; and

(iv) The pile must have a leachate collection and removal system above the top liner that is designed, constructed, maintained, and operated in accordance with subsection (2)(a)(ii) of this section.

(b) If liquid leaks into the leak detection system, the owner or operator must:

(i) Notify the department of the leak in writing within seven days after detecting the leak; and

(ii) (A) Within the period of time specified in the permit, remove accumulated liquid, repair or replace the liner which is leaking to prevent the migration of liquids through the liner, and obtain a certification from a qualified engineer that, to the best of his knowledge and opinion, the leak has been stopped; or

(B) If a detection monitoring program pursuant to WAC 173-303-645(9) has already been defined in the permit (to be complied with only if a leak occurs), begin to comply with that program and any other applicable requirements of WAC 173-303-645 within the period of time specified in the permit.

(c) The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this subsection are satisfied.

(4) Inspection of liners; exemption from WAC 173-303-645, ground water protection requirements.

(a) The owner or operator of a pile is not subject to regulation under WAC 173-303-645 if the following conditions are met:

(i) The pile (including its underlying liner) must be located entirely above the seasonal high water table;

(ii) The pile must be underlain by a liner (base) that meets all the specifications of subsection (2)(a)(i) of this section;

(iii) The wastes in the pile must be removed periodically, and the liner must be inspected for deterioration, cracks, or other conditions that may result in leaks. The frequency of inspection will be specified in the inspection plan required in WAC 173-303-320 and must be based on the potential for the liner (base) to crack or otherwise deteriorate under the conditions of operation;

(iv) The liner must be of sufficient strength and thickness to prevent failure due to puncture, cracking, tearing, or other physical damage from equipment used to place waste in or on the pile or to clean and expose the liner surface for inspection; and

(v) The pile must have a leachate collection and removal system above the liner that is designed, constructed, maintained, and operated in accordance with subsection (2)(a)(ii) of this section.

(b) If deterioration, cracking, or other condition is identified that is causing or could cause a leak, the owner or operator must:

(i) Notify the department of the condition in writing within seven days after detecting the condition; and

(ii)(A) Repair or replace the liner (base) and obtain a certification from a qualified engineer that, to the best of his knowledge and opinion, the liner (base) has been repaired and leakage will not occur; or

(B) If a detection monitoring program pursuant to WAC 173-303-645(9) has already been defined in the permit (to be complied with only if a leak occurs), begin to comply with that program and any other applicable requirements of WAC 173-303-645 within the period of time specified in the permit.

(c) The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this subsection are satisfied.

(5) Monitoring and inspection.

(a) During construction or installation, liners (except in the case of existing portions of piles exempt from subsection (2)(a) of this section), and cover systems (e.g., membranes, sheets, coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, foreign materials). Immediately after construction or installation:

(i) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(ii) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural nonuniformities that may cause an increase in the permeability of the liner or cover.

(b) While a waste pile is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(i) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(ii) The presence of liquids in leak detection systems, where installed to comply with subsection (3) of this section;

(iii) Proper functioning of wind dispersal control systems; and

(iv) The presence of leachate in and proper functioning of leachate collection and removal systems.

(6) Containment system repairs—Contingency plans.

(a) Whenever there is any indication of a possible failure of the containment system, that system must be inspected in accordance with the provisions of the containment system evaluation and repair plan required by (d) of this subsection. Indications of possible failure of the containment system include liquid detected in the leachate detection system, evidence of leakage or the potential for leakage in the base, erosion of the base, or apparent or potential deterioration of the liner(s) based on observation or test samples of the liner materials.

(b) Whenever there is a positive indication of a failure of the containment system, the waste pile must be removed from service. Indications of positive failure of the containment system include waste detected in the leachate detection system, or a breach (e.g., a hole, tear, crack, or separation) in the base.

(c) If the waste pile must be removed from service as required by (b) of this subsection, the owner or operator must:

(i) Immediately stop adding wastes to the pile;

(ii) Immediately contain any leakage which has occurred or is occurring;

(iii) Immediately cause the leak to be stopped; and

(iv) If the leak cannot be stopped by any other means, remove the waste from the base.

(d) As part of the contingency plan required in WAC 173-303-350, the owner or operator must specify:

(i) A procedure for complying with the requirements of (c) of this subsection; and

(ii) A containment system evaluation and repair plan describing: Testing and monitoring techniques; procedures to be followed to evaluate the integrity of the containment system in the event of a possible failure; a schedule of actions to be taken in the event of a possible failure; and a description of the repair techniques and materials (and their availability) to be used in the event of leakage due to containment system failure or deterioration which does not require the waste pile to be removed from service. For EHW piles, the owner or operator must submit with his permit application a statement signed by a licensed professional engineer of the basis on which the evaluation and repair plan has been established.

(e) No waste pile that has been removed from service pursuant to (b) of this subsection, may be restored to service unless:

(i) The containment system has been repaired; and

(ii) The containment system has been certified by a qualified engineer as meeting the design specifications approved in the permit.

(f) A waste pile that has been removed from service pursuant to (b) of this subsection, and will not be repaired, must be closed in accordance with subsection (9) of this section.

(7) Special requirements for ignitable or reactive waste. Ignitable or reactive waste must not be placed in a pile, unless:

(a) Addition of the waste to an existing pile results in the waste or mixture no longer meeting the definition of ignitable or reactive waste under WAC 173-303-090, and complies with WAC 173-303-395 (1)(b); or

(b)(i) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; and

(ii) The generator complies with WAC 173-303-395 (1)(d).

(8) Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials must not be placed in the same pile, unless WAC 173-303-395 (1)(b) is complied with.

(b) A pile of dangerous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device. Piles of incompatible wastes must not be served by the same containment system.

(c) Dangerous waste must not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with WAC 173-303-395 (1)(b).

(9) Closure and postclosure care.

(a) At closure, the owner or operator must remove or decontaminate all dangerous waste, waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them in accordance with this chapter.

(b) If, after removing or decontaminating all residues and making all reasonable efforts regarding removal or decontamination of contaminated components, subsoils, structures, and equipment as required in (a) of this subsection, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated (except that no EHW may ever be left in place), he must close the facility and perform postclosure care in accordance with the closure and postclosure care requirements that apply to landfills, WAC 173-303-665(6).

(c) (i) The owner or operator of a waste pile that does not comply with the liner requirements of subsection (2)(a)(i) of this section, and is not exempt from them in accordance with subsection (1)(c) or (2)(d) of this section, must:

(A) Include in the closure plan for the pile under WAC 173-303-610(3) both a plan for complying with (a) of this subsection, and a contingent plan for complying with (b) of this subsection, in case not all contaminated subsoils can be practicably removed at closure; and

(B) Prepare a contingent postclosure plan under WAC 173-303-610(8) for complying with (b) of this subsection, in case not all contaminated subsoils can be practicably removed at closure.

(ii) The cost estimates calculated under WAC 173-303-620(3) and (5) for closure and postclosure care of a pile must include the cost of complying with the contingent closure plan and the contingent postclosure plan.

(10) Special requirements for dangerous wastes F020, F021, F022, F023, F026, and F027.

(a) Dangerous wastes F020, F021, F022, F023, F026, and F027 must not be placed in waste piles that are not enclosed (as defined in subsection (1)(c) of this section) unless the owner or operator operates the waste pile in accordance with a management plan for these wastes that is approved by the department pursuant to the standards set out in this subsection, and in accord with all other applicable requirements of this chapter. The factors to be considered are:

(i) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(ii) The attenuative properties of underlying and surrounding soils or other materials;

(iii) The mobilizing properties of other materials co-disposed with these wastes; and

(iv) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The department may determine that additional design, operating, and monitoring requirements are necessary in order to reduce the possibility of migration of these wastes to ground water, to surface water, or air so as to protect human health and the environment. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-660, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-660, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-660, filed 2/10/82.]

WAC 173-303-665 Landfills. (1) Applicability. The regulations in this section apply to owners and operators of facilities that dispose of dangerous waste in landfills, except as WAC 173-303-600 provides otherwise. No landfill shall be permitted to dispose of EHW, except for the Hanford facility under WAC 173-303-700.

(2) Design and operating requirements.

(a) A landfill (except for an existing portion of a landfill) must have:

(i) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or ground water or surface water at anytime during the active life (including the closure period) of the landfill. The liner must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The owner or operator must submit an engineering report with his permit application under WAC 173-303-806(4) stating the basis for selecting the liner(s). The report must be certified by a licensed professional engineer. The liner must be:

(A) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(B) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(C) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(ii) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The department will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(A) Constructed of materials that are:

(I) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(II) Of sufficient strength and thickness to prevent failure under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and

(B) Designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator will be exempted from the requirements of (a) of this subsection, if the department finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics, will prevent the migration of any dangerous constituents into the ground water or surface water at any future time. In deciding whether to grant an exemption, the department will consider:

(i) The nature and quantity of the wastes;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and ground water or surface water; and

(iv) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a twenty-five-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a twenty-four-hour, twenty-five-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously and in accordance with this chapter after storms to maintain design capacity of the system.

(f) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind dispersal.

(g) The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this subsection are satisfied.

(3) Double-lined landfills; exemption from WAC 173-303-645, ground water protection requirements.

(a) The owner or operator of a double-lined landfill is not subject to regulation under WAC 173-303-645 if the following conditions are met:

(i) The landfill (including its underlying liners) must be located entirely above the seasonal high water table;

(ii) The landfill must be underlain by two liners which are designed and constructed in a manner to prevent the migration of liquids into or out of the space between the liners. Both liners must meet the specifications of subsection (2)(a)(i) of this section;

(iii) A leak detection system must be designed, constructed, maintained, and operated between the liners to detect any migration of liquid into the space between the liners; and

(iv) The landfill must have a leachate collection and removal system above the top liner that is designed, constructed, maintained, and operated in accordance with subsection (2)(a)(ii) of this section.

(b) If liquid leaks into the leak detection system, the owner or operator must:

(i) Notify the department of the leak in writing within seven days after detecting the leak; and

(ii)(A) Within the time period specified in the permit, remove accumulated liquid, repair or replace the liner which is leaking to prevent the migration of liquids through the liner, and obtain a certification from a qualified engineer that, to the best of his knowledge and opinion, the leak has been stopped; or

(B) If a detection monitoring program pursuant to WAC 173-303-645(9) has already been established in the permit (to be complied with only if a leak occurs), begin to comply with that program and any other applicable requirements of WAC 173-303-645 within the time period specified in the permit.

(c) The department will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this subsection are satisfied.

(4) Monitoring and inspection.

(a) During construction or installation, liners (except in the case of existing portions of landfills exempt from subsection (2)(a) of this section), and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

(i) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(ii) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural nonuniformities that may cause an increase in the permeability of the liner or cover.

(b) While a landfill is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

(i) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(ii) The presence of liquids in leak detection systems, where installed to comply with subsection (3) of this section;

(iii) Proper functioning of wind dispersal control systems; and

(iv) The presence of leachate in and proper functioning of leachate collection and removal systems.

(5) Surveying and recordkeeping. The owner or operator of a landfill must maintain the following items in the operating record required under WAC 173-303-380:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each dangerous waste type within each cell.

(6) Closure and postclosure care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

(i) Provide long-term minimization of migration of liquids through the closed landfill;

(ii) Function with minimum maintenance;

(iii) Promote drainage and minimize erosion or abrasion of the cover;

(iv) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(v) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator must comply with all postclosure requirements contained in WAC 173-303-610 (7), (8), (9), and (10) including maintenance and monitoring throughout the postclosure care period. The owner or operator must:

(i) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(ii) Maintain and monitor the leak detection system in accordance with subsection (3) of this section, where such a system is present between double liner systems;

(iii) Continue to operate the leachate collection and removal system until leachate is no longer detected;

(iv) Maintain and monitor the ground water monitoring system and comply with all other applicable requirements of WAC 173-303-645;

(v) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(vi) Protect and maintain surveyed benchmarks used in complying with subsection (5) of this section.

(c) During the postclosure care period, if liquid leaks into a leak detection system installed under subsection (3) of this section, the owner or operator must notify the department of the leak in writing within seven days after detecting the leak. The department will modify the permit to require compliance with the requirements of WAC 173-303-645.

(7) Special requirements for ignitable or reactive waste.

(a) Except as provided in (b) of this subsection, and in subsection (10) of this section, ignitable or reactive

waste must not be placed in a landfill, unless the waste is treated, rendered, or mixed before or immediately after placement in a landfill so that:

(i) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under WAC 173-303-090 (5) and (7); and

(ii) WAC 173-303-395 (1)(b) is complied with.

(b) Ignitable wastes in containers may be landfilled without meeting the requirements of (a) of this subsection, provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes: Must be disposed of in nonleaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; must be covered daily with soil or other noncombustible material to minimize the potential for ignition of the wastes; and must not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

(8) Special requirements for incompatible wastes. Incompatible wastes, or incompatible wastes and materials must not be placed in the same landfill cell, unless WAC 173-303-395 (1)(b) is complied with.

(9) Special requirements for liquid waste.

(a) Bulk or noncontainerized liquid waste or waste containing free liquids must not be placed in a landfill unless, before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically (e.g., by mixing with an absorbent solid), so that free liquids are no longer present.

(b) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods.* (EPA Publication No. SW-846).

(c) Containers holding free liquids must not be placed in a landfill unless:

(i) All free-standing liquid:

(A) Has been removed by decanting, or other methods;

(B) Has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or

(C) Has been otherwise eliminated; or

(ii) The container is very small, such as an ampule; or

(iii) The container is a lab pack as defined in subsection (10) of this section, and is disposed of in accordance with that subsection.

(10) Special requirements for containers.

(a) Unless they are very small, such as an ampule, containers must be either:

(i) At least ninety percent full when placed in the landfill; or

(ii) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

(b) Small containers of dangerous waste in overpacked drums (lab packs) may be placed in a landfill if the procedures of WAC 173-303-161 are met.

(11) Special requirements for dangerous wastes F020, F021, F022, F023, F026, and F027.

(a) Dangerous wastes F020, F021, F022, F023, F026, or F027 must not be placed in a landfill unless the owner or operator operates the landfill in accord with a management plan for these wastes that is approved by the department pursuant to the standards set out in this subsection and in accord with all other applicable requirements of this chapter. The factors to be considered are:

(i) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;

(ii) The attenuative properties of underlying and surrounding soils or other materials;

(iii) The mobilizing properties of other materials co-disposed with these wastes; and

(iv) The effectiveness of additional treatment, design, or monitoring requirements.

(b) The department may determine that additional design, operating, and monitoring requirements are necessary for landfills managing dangerous wastes F020, F021, F022, F023, F026, or F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-665, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-665, filed 4/18/84.]

WAC 173-303-670 Incinerators. (1) Applicability.

(a) Except as WAC 173-303-600 provides otherwise, the regulations in this section apply to owners and operators of facilities that incinerate dangerous waste and to owners and operators who burn dangerous waste in boilers or industrial furnaces in order to destroy them, or who burn dangerous waste in boilers or in industrial furnaces for any recycling purpose and elect to be regulated under this section.

(b) The department may, in establishing permit conditions, exempt the facility from all requirements of this section except subsection (2) of this section, waste analysis, and subsection (8) of this section, closure, if the department finds, after an examination of the waste analysis included with Part B of the owner/operator's permit application, that the waste to be burned:

(i)(A) Is either listed as a dangerous waste in WAC 173-303-080 only because it is ignitable or, that the waste is designated only as an ignitable dangerous waste under WAC 173-303-090; or

(B) Is either listed in WAC 173-303-080 or is designated under WAC 173-303-090 solely because it is reactive for the characteristics described in WAC 173-303-090 (7)(a)(i), (ii), (iii), (vi), (vii) and (viii), and will not be burned when other dangerous wastes are present in the combustion zone; and

(ii) Contains none of the dangerous constituents listed in WAC 173-303-9905 above significant concentration limits; and

(iii) Is not designated by the dangerous waste criteria of WAC 173-303-101, Toxic dangerous wastes, nor of WAC 173-303-102, Persistent dangerous wastes, nor of WAC 173-303-103, Carcinogenic dangerous wastes.

(c) The owner or operator of an incinerator may conduct trial burns, subject only to the requirements of WAC 173-303-807, trial burn permits.

(2) Waste analysis.

(a) As a portion of a trial burn plan required by WAC 173-303-807, or with Part B of his permit application, the owner or operator must have included an analysis of his waste feed sufficient to provide all information required by WAC 173-303-807 or 173-303-806 (3) and (4).

(b) Throughout normal operation the owner or operator must conduct sufficient waste analysis to verify that waste feed to the incinerator is within the physical and chemical composition limits specified in his permit (under subsection (6)(b) of this section).

(3) Designation of principal organic dangerous constituents and dangerous combustion byproducts. Principal organic dangerous constituents (PODCs) and dangerous combustion byproducts must be treated to the extent required by the performance standards specified in subsection (4) of this section. For each waste feed to be burned, one or more PODCs and dangerous combustion byproducts will be specified in the facility's permit from among those constituents listed in WAC 173-303-9905 and, to the extent practical, from among those constituents which contribute to the toxicity, persistence, or carcinogenicity of wastes designated under WAC 173-303-084 or 173-303-101 through 173-303-103. This specification will be based on the degree of difficulty of incineration of the organic constituents of the waste feed and its combustion byproducts and their concentration or mass, considering the results of waste analyses and trial burns or alternative data submitted with Part B of the facility's permit application. Organic constituents or byproducts which represent the greatest degree of difficulty of incineration will be those most likely to be designated as PODCs and dangerous combustion byproducts. Constituents are more likely to be designated as PODCs or dangerous combustion byproducts if they are present in large quantities or concentrations. Trial PODCs will be designated for performance of trial burns in accordance with the procedure specified in WAC 173-303-807 for obtaining trial burn permits. Trial dangerous combustion byproducts may be designated under the same procedures.

(4) Performance standards. An incinerator burning dangerous waste must be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under subsection (6) of this section, it will meet the following performance standards:

(a)(i) Except as provided in (a)(ii) of this subsection, an incinerator burning dangerous waste must achieve a destruction and removal efficiency (DRE) of 99.99 percent for each PODC designated (under subsection (3) of this section) in its permit for each waste feed. DRE is determined for each PODC from the following equation:

$$DRE = \frac{(W_{in} - W_{out}) \times 100\%}{W_{in}}$$

Where:

W_{in} = Mass feed rate of one PODC in the waste stream feeding the incinerator, and

W_{out} = Mass emission rate of the same PODC present in exhaust emissions prior to release to the atmosphere.

(ii) An incinerator burning dangerous wastes F020, F021, F022, F023, F026, or F027 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principal organic dangerous constituent (PODCs) designated (under subsection (3) of this section) in its permit. This performance must be demonstrated on PODCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each PODCs from the equation in subsection (4)(a)(i) of this section. In addition, the owner or operator of the incinerator must notify the department of his intent to incinerate dangerous wastes F020, F021, F022, F023, F026, or F027.

(b) Incinerators burning dangerous waste must destroy dangerous combustion byproducts designated under subsection (3) of this section so that the total mass emission rate of these byproducts emitted from the stack is no more than .01 percent of the total mass feed rate of PODCs fed into the incinerator.

(c)(i) An incinerator burning dangerous waste and producing stack emissions of more than 1.8 kilograms per hour (4 pounds per hour) of hydrogen chloride (HCl) must control HCl emissions such that the rate of emission is no greater than the larger of either 1.8 kilograms per hour or one percent of the HCl in the stack gas prior to entering any pollution control equipment.

(ii) An incinerator burning dangerous waste must not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) when corrected for the amount of oxygen in the stack gas according to the formula:

$$Pc = Pm \times \frac{14}{21-Y}$$

Where Pc is the corrected concentration of particulate matter, Pm is the measured concentration of particulate matter, and Y is the measured concentration of oxygen in the stack gas, using the Orsat method for oxygen analysis of dry flue gas, presented in 40 CFR Part 60, Appendix A (Method 3). This correction procedure is to be used by all dangerous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the department will select an appropriate correction procedure to be specified in the facility permit.

(d) The emission standards specified in (c) of this subsection shall be met when no other more stringent standards exist. Where a state or local air pollution control authority has jurisdiction and has more stringent

emission standards, an incinerator burning dangerous wastes shall comply with the applicable air pollution control authority's emission standards (including limits based on best available control technology).

(e) For purposes of permit enforcement, compliance with the operating requirements specified in the permit (under subsection (6) of this section), will be regarded as compliance with subsection (4) of this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of subsection (4) of this section, may be evidence justifying modification, revocation, or reissuance of a permit under WAC 173-303-830.

(5) Trial burns and permit modifications.

(a) The owner or operator of a dangerous waste incinerator may burn only wastes specified in his permit and only under operating conditions specified for those wastes under subsection (6) of this section, except:

(i) In approved trial burns under WAC 173-303-807; or

(ii) Under exemptions created by WAC 173-303-670(1).

(b) New dangerous wastes may be burned only after operating conditions have been specified in a trial burn permit or a permit modification has been issued, as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with Part B of a permit application under WAC 173-303-806(4).

(c) The permit for a new dangerous waste incinerator must establish appropriate conditions for each of the applicable requirements of this section, including but not limited to allowable waste feeds and operating conditions necessary to meet the requirements of subsection (6) of this section, sufficient to comply with the following standards:

(i) For the period beginning with initial introduction of dangerous waste to the incinerator and ending with initiation of the trial burn, and only for the minimum time required to establish operating conditions required in (c)(ii) of this subsection, not to exceed a duration of seven hundred twenty hours operating time for treatment of dangerous waste. The operating requirements must be those most likely to ensure compliance with the performance standards of subsection (4) of this section, based on the department's engineering judgment. The department may extend the duration of this period once for up to seven hundred twenty additional hours when good cause for the extension is demonstrated by the applicant;

(ii) For the duration of the trial burn, the operating requirements must be sufficient to demonstrate compliance with the performance standards of subsection (4) of this section, and must be in accordance with the approved trial burn plan;

(iii) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the department, the operating requirements must be those most likely to ensure compliance with the performance standards of subsection (4) of this section, based on the department's engineering judgment;

(iv) For the remaining duration of the permit, the operating requirements must be those demonstrated, in a trial burn or by alternative data specified in WAC 173-303-806 (4)(f)(iii)(G), as sufficient to ensure compliance with the performance standards of subsection (4) of this section.

(6) Operating requirements.

(a) An incinerator must be operated in accordance with operating requirements specified in the permit. These will be specified on a case-by-case basis as those demonstrated (in a trial burn or in alternative data as specified in subsection (5)(b) of this section and included with Part B of a facility's permit application) to be sufficient to comply with the performance standards of subsection (4) of this section.

(b) Each set of operating requirements will specify the composition of the waste feed (including acceptable variations in the physical or chemical properties of the waste feed which will not affect compliance with the performance requirement of subsection (4) of this section) to which the operating requirements apply. For each such waste feed, the permit will specify acceptable operating limits including the following conditions:

(i) Carbon monoxide (CO) level in the stack exhaust gas;

(ii) Waste feed rate;

(iii) Combustion temperature;

(iv) An appropriate indicator of combustion gas velocity;

(v) Allowable variations in incinerator system design or operating procedures; and

(vi) Such other operating requirements as are necessary to ensure that the performance standards of subsection (4) of this section are met.

(c) During startup and shutdown of an incinerator, dangerous waste (except waste exempted in accordance with subsection (1)(b) of this section) must not be fed into the incinerator unless the incinerator is operating within the conditions of operation (temperature, air feed rate, etc.) specified in the permit.

(d) Fugitive emissions from the combustion zone must be controlled by:

(i) Keeping the combustion zone totally sealed against fugitive emissions;

(ii) Maintaining a combustion zone pressure lower than atmospheric pressure; or

(iii) An alternate means of control demonstrated (with Part B of the permit application) to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

(e) An incinerator must be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from limits established under (a) of this subsection.

(f) An incinerator must cease operation when changes in waste feed, incinerator design, or operating conditions exceed limits designated in its permit.

(7) Monitoring and inspections.

(a) The owner or operator must conduct, as a minimum, the following monitoring while incinerating dangerous waste:

(i) Combustion temperature, waste feed rate, and the indicator of combustion gas velocity specified in the facility permit must be monitored on a continuous basis;

(ii) Carbon monoxide (CO) must be monitored on a continuous basis at a point in the incinerator downstream of the combustion zone and prior to release to the atmosphere; and

(iii) As required by the department, sampling and analysis of the waste and exhaust emissions must be conducted to verify that the operating requirements established in the permit achieve the performance standards of subsection (4) of this section.

(b) The incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be completely inspected at least daily for leaks, spills, fugitive emissions, and signs of tampering. All emergency waste feed cutoff controls and system alarms must be tested at least weekly to verify proper operation, unless the owner or operator demonstrates to the department that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, emergency cutoff and alarm systems must be tested at least monthly.

(c) This monitoring and inspection data must be recorded and the records must be placed in the operating log required by WAC 173-303-380(1).

(8) Closure. At closure the owner or operator must remove all dangerous waste and dangerous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the incinerator site. Remaining equipment, bases, liners, soil, and debris containing or contaminated with dangerous waste or waste residues must be decontaminated or removed. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-670, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-670, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-670, filed 2/10/82.]

WAC 173-303-700 Requirements for the Washington state extremely hazardous waste management facility at Hanford. (1) Purpose and applicability. The purpose of this section is to set forth the requirements for the Washington EHW management (EHWM) facility located at Hanford, Washington. It is the only facility within the state that is allowed under law to dispose of EHW (RCW 70.105.050).

(2) Waste acceptance at Hanford.

(a) The state operator shall accept EHW for treatment, storage, or disposal when:

(i) The waste has been specified in the state operator's permit as not requiring prior approval from the department and the state operator sends a copy of each written request for disposal of waste at the EHWM facility to the department, not later than one week after receiving the request; or

(ii) If the waste has not been specified in the state operator's permit, then the department provides written approval that the waste may be accepted at the EHWM facility. Notices of approval or disapproval shall be provided as soon as possible, but not later than 15 days, after the state operator has notified the department. Written approval from the department is not required in emergencies, as specified; and

(iii) The generator has obtained prior written approval for waste acceptance from the state operator;

(iv) The waste is accompanied by a manifest specified in the generator requirements of WAC 173-303-180, Manifest; and

(v) Waste containers meet the labeling and container condition requirements of WAC 173-303-190.

(b) The state operator may accept DW, as defined in this regulation, for storage, treatment, or disposal when:

(i) All the conditions of EHW acceptance, (a) of this subsection, are met;

(ii) The generator and/or operator shows that no other permitted TSD facility in the state will handle such DW. The generator and/or operator shall refer to:

(A) County or municipal ordinances or solid waste permits forbidding DW disposal at nearby sites;

(B) The EHWM site being the shortest economical haul distance where other remotely located, DW sites may be available; and

(C) Specific rejection or disapproval, in writing, by nearby DW site operators, public or private; and

(iii) The EHWM facility is designed to handle such a request or can be modified to the extent necessary to adequately dispose of the waste.

(c) The state operator, after consulting with the department, may refuse to accept any waste that does not meet the requirements of the acceptance procedures of this subsection until the facts are ascertained, including but not limited to:

(i) The requirement that samples of waste be taken and analyzed; or

(ii) The condition of the containers by physical inspection of the delivery load.

(d) The state operator may accept dangerous waste under emergency conditions if:

(i) An emergency and potential threat to the public health and safety exists;

(ii) the state operator notifies the department as soon as possible;

(iii) The state operator stores the waste upon delivery until the full manifest has been received and approved by the department; and

(iv) The generator is fully apprised that the waste remains his liability until approved under (d)(iii) of this subsection.

(3) Other applicable requirements. The EHWM facility at Hanford shall meet all other requirements of chapter 173-303 WAC, including specific requirements for storage, treatment, transfer and disposal of EHW, and siting, performance, and operation of facilities. The

EHWM facility shall also meet the following requirements:

(a) The state operator shall not remove any dangerous waste from the facility without the department's approval;

(b) The state operator shall maintain facilities for telephone and radio contact with the Hanford Reservation security patrol, and include this information with the contingency plan required in WAC 173-303-350;

(c) As a minimum, the state operator shall provide personnel having knowledge and background in the following areas:

(i) Inspecting and checking manifests for completeness and accuracy;

(ii) Applied chemistry as it relates to reactivity, explosiveness, and flammability; and

(iii) Industrial hygiene and/or toxicology of industrial, commercial, and agricultural chemicals, and emergency procedures;

(d) The state operator shall ensure that new personnel have a complete physical examination and annual checkups thereafter. The physician should be alerted to the kinds of materials the employee has been handling, so that more specific analyses can be made. The medical records shall be made a part of the state operator's records as required in WAC 173-303-380(1); and

(e) The state operator shall submit copies of all fee schedules to the department for yearly review and approval. The state operator shall supply, and the department shall use, the following criteria to review such disposal fees:

(i) Their relationship to other fees charged for similar services;

(ii) Reasonable return on investment and profit for the operator; and

(iii) The cost of administration, development, operation, maintenance, and perpetual management of the EHW facility, including administrative costs and perpetual management costs of the department.

(4) Department surveillance.

(a) In addition to the reports required under WAC 173-303-390, facility reports, the EHWM facility operator shall report the following to the department:

(i) Copies of all environmental sampling results during the previous quarter;

(ii) Telephone and written accounts of any accidents or emergencies requiring action under WAC 173-303-360; and

(iii) Complete financial reports during the previous year.

(b) The state operator shall admit the department's duly authorized representative to inspect the site at any reasonable hour of the day. Inspection may cover any of the following:

(i) The site and facilities;

(ii) The waste being delivered, stored, processed, or buried, including the taking of samples, a portion of each sample being given to the operator upon his request;

(iii) The environment, by the drilling of test wells and obtaining of samples; and

(iv) Any records, reports, information, or test results relating to the purpose of this regulation.

The inspection results will be written, filed with the department, and a copy made available to the state operator. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-700, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-700, filed 2/10/82.]

WAC 173-303-800 Permit requirements for dangerous waste management facilities. (1) The purpose of WAC 173-303-800 through 173-303-840 is to establish the requirements for permits which will allow a dangerous waste facility to operate without endangering the public health and the environment.

(2) The owner/operator of a dangerous waste facility that transfers, treats, stores, or disposes (TSD) or recycles dangerous waste shall, when required by this chapter, obtain a permit covering the active life, closure period, ground water protection compliance period, and for any regulated unit (as defined in WAC 173-303-040(75)), and for any facility which at closure does not meet the removal or decontamination limits of WAC 173-303-610 (2)(b), post-closure care period in accordance with WAC 173-303-800 through 173-303-840.

(3) TSD facility permits will be granted only if the objectives of the siting and performance standards set forth in WAC 173-303-420 and 173-303-430 are met.

(4) Permits shall be issued according to the requirements of all applicable TSD facility standards.

(5) The owner/operator of a TSD facility is responsible for obtaining all other applicable federal, state, and local permits authorizing the development and operation of the TSD facility.

(6) The terms used in regard to permits which are not defined in WAC 173-303-040 shall have the same meanings as set forth in 40 CFR 270.2. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-800, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-800, filed 2/10/82.]

WAC 173-303-801 Types of dangerous waste management facility permits. The following types of permits may be issued by the department to carry out the purpose of this regulation.

(1) Permits by rule:

(a) Ocean disposal - See WAC 173-303-802(2);

(b) Underground injection wells - See WAC 173-303-802(3);

(c) Publicly owned treatment works - See WAC 173-303-802(4); and

(d) Totally enclosed treatment facilities and elementary neutralization and wastewater treatment units - See WAC 173-303-802(5).

(2) Emergency permits - See WAC 173-303-804.

(3) Interim status permits - See WAC 173-303-805.

(4) Final facility permits:

(a) Final status TSD permits – See WAC 173-303-806;

(b) Moderate risk permits – See WAC 173-303-806; and

(c) Recycling permits – See WAC 173-303-806.

(5) Trial burns for dangerous waste incinerator final facility permits – See WAC 173-303-807.

(6) Demonstrations for dangerous waste land treatment final facility permits – See WAC 173-303-808.

(7) Demonstration permit for new chemical, physical or biological treatment processes – See WAC 173-303-809. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-801, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-801, filed 2/10/82.]

WAC 173-303-802 Permits by rule. (1) Purpose and applicability. This section provides for permit by rule for particular facilities and activities managing dangerous wastes, provided that certain conditions are met. These facilities, activities, and conditions are listed in this section. Owners and operators of facilities with permits by rule are not required to submit an application for a dangerous waste facility permit.

(2) Ocean disposal barges or vessels. The owner or operator of a barge or other vessel which accepts dangerous waste for ocean disposal, shall have a permit by rule if the owner or operator:

(a) Has a permit for ocean dumping issued under 40 CFR Part 220 (Ocean Dumping, authorized by the Marine Protection, Research, and Sanctuaries Act, as amended, 33 U.S.C. § 1420 et seq.);

(b) Complies with the conditions of that permit; and

(c) Complies with the following dangerous waste regulations:

(i) WAC 173-303-060, notification and identification numbers;

(ii) WAC 173-303-170 through 173-303-230 when initiating shipments of dangerous waste;

(iii) WAC 173-303-370, manifest system;

(iv) WAC 173-303-380 (1)(a), operating record;

(v) WAC 173-303-390(2), annual report; and

(vi) WAC 173-303-390(1), unmanifested waste report.

(3) Underground injection wells. Underground injection wells with an underground injection control (UIC) permit for underground injection shall have a permit by rule if the owner or operator has a UIC permit issued by the department under a federally approved program for underground injection control, and complies with the conditions of the permit and requirements of 40 CFR 144.14 and applicable state waste discharge rules. All underground injection wells must comply with WAC 173-303-060, notification and identification numbers. However, underground injection wells disposing of EHW are prohibited.

(4) Publicly owned treatment works (POTW). The owner or operator of a POTW which accepts dangerous waste for treatment, shall have a permit by rule if the owner or operator:

(a) Has a National Pollutant Discharge Elimination System (NPDES) permit;

(b) Complies with the conditions of that permit;

(c) Complies with the following regulations:

(i) WAC 173-303-060, notification and identification numbers;

(ii) WAC 173-303-170 through 173-303-230 when initiating shipments of dangerous waste;

(iii) WAC 173-303-370, manifest system;

(iv) WAC 173-303-380 (1)(a), operating record;

(v) WAC 173-303-390(2), annual report; and

(vi) WAC 173-303-390(1), unmanifested waste reports;

(d) Accepts the waste only if it meets all federal, state, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance; and

(e) Accepts no EHW for disposal at the POTW.

(5) Totally enclosed treatment facilities and elementary neutralization or wastewater treatment units.

(a) The owner or operator of a totally enclosed treatment facility or an elementary neutralization or wastewater treatment unit shall have a permit by rule, except as provided in (b) or (c) of this subsection, if he complies with:

(i) WAC 173-303-060, notification and identification numbers;

(ii) WAC 173-303-310, 173-303-350, 173-303-360, 173-303-370, 173-303-380 (1)(d), and 173-303-390 of the general facility standards; and

(iii) WAC 173-303-430, performance standards.

(b) A facility is not required to have a permit by rule under this subsection if the owner or operator can demonstrate to the department's satisfaction that:

(i) The facility already has an existing permit (or permits) issued under federal, state or local authority (such as NPDES, state waste discharge, pretreatment, etc.); and

(ii) The permit (or permits) include, either separately or jointly in the case of multiple permits, all requirements specified in (a) of this subsection.

(c) The department may require the owner or operator of a totally enclosed treatment facility or an elementary neutralization or wastewater treatment unit subject to either (a) or (b) of this subsection to apply for and obtain a final facility permit in accordance with WAC 173-303-800 through 173-303-840, if:

(i) The owner or operator violates the general facility or performance requirements specified in (a) of this subsection;

(ii) The owner or operator is conducting other activities which require him to obtain a final facility permit; or

(iii) The department determines that the general facility or performance requirements specified in (a) of this subsection, are not sufficient to protect public health or the environment and that additional requirements under chapter 173-303 WAC are necessary to provide such protection. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-802,

filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-802, filed 4/18/84.]

WAC 173-303-804 Emergency permits. Requirements for an emergency permit. In the event the department finds that an imminent and substantial endangerment to human health or the environment exists, the department may issue a temporary emergency permit to a facility to allow treatment, storage, or disposal (TSD) of dangerous waste at a nonpermitted facility, or at a facility covered by an effective permit that does not otherwise allow treatment, storage, or disposal of such dangerous waste. Notice of the issuance of an emergency permit shall be given to the fire marshal, police department, and other local emergency service agencies with jurisdiction near the location of the facility. The emergency permit:

(1) May be oral or written. If oral, it shall be followed within five days by a written emergency permit;

(2) Shall not exceed ninety days in duration for dangerous wastes;

(3) Shall not exceed one hundred eighty days in duration for moderate risk wastes;

(4) Shall clearly specify the dangerous wastes to be received, and the manner and location of their treatment, storage, or disposal;

(5) May be terminated by the department at any time without following the decisionmaking procedures of WAC 173-303-840 if the department determines that termination is appropriate to protect public health and the environment;

(6)(a) Shall be accompanied by a public notice that includes:

(i) The name and address of the department;

(ii) The name and location of the permitted TSD facility;

(iii) A brief description of the wastes involved;

(iv) A brief description of the action authorized and reasons for authorizing it; and

(v) The duration of the emergency permit; and

(b) Shall be given public notice by:

(i) Publication in a daily newspaper within the area affected;

(ii) By radio broadcast within the area affected;

(iii) By mailing a copy of the public notice to the persons described in WAC 173-303-840 (3)(e)(i); and

(iv) Any other method reasonably determined to give actual notice of the emergency permit to persons potentially affected by it; and

(7) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this chapter. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-804, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-804, filed 4/18/84.]

WAC 173-303-805 Interim status permits. (1) Applicability. This section applies to all facilities eligible for an interim status permit. When a facility is owned by one person but is operated by another person, it is the operator's duty to qualify for interim status, except that the owner must also sign an interim status application.

(2) Failure to qualify for interim status. If the department has reason to believe upon examination of a Part A application that it fails to provide the required information, it shall notify the owner or operator in writing of the apparent deficiency. Such notice shall specify the grounds for the department's belief that the application is deficient. The owner or operator shall have thirty days from receipt to respond to such a notification and to explain or cure the alleged deficiency in his Part A application. If, after such notification and opportunity for response, the department determines that the application is deficient it may take appropriate enforcement action.

(3) Interim status for facilities under RCRA interim status. Any existing facility operating under interim status gained under section 3005 of RCRA shall be deemed to have an interim status permit under chapter 173-303 WAC provided that the owner/operator complies with the applicable requirements of WAC 173-303-400 and this section.

(4) Interim status for facilities managing state-designated (non-RCRA) dangerous wastes. Any existing facility which does not satisfy subsection (3) of this section, but which is only managing dangerous wastes that are not hazardous wastes under 40 CFR Part 261, shall be deemed to have an interim status permit provided that the owner/operator of the facility has complied with the notification requirements of WAC 173-303-060 by May 11, 1982 and has submitted Part A of his permit application by August 9, 1982. If an existing facility becomes subject to this chapter due to amendments to this chapter and the facility was not previously subject to this chapter, then the owner/operator of an existing facility may qualify for an interim status permit by complying with the notification requirements of WAC 173-303-060 within three months, and submitting Part A of his permit application within six months, after the adoption date of the amendments which cause the facility to be subject to the requirements of this chapter. Facilities qualifying for interim status under this subsection shall not be deemed to have interim status under section 3005 of RCRA, and may only manage non-RCRA wastes until they either qualify separately for interim status under section 3005 of RCRA or receive a final status facility permit allowing them to manage RCRA wastes.

(5) Maintaining the interim status permit.

(a) Timely notification and submission of a Part A application qualifies the owner/operator of the existing TSD facility for the interim status permit, until the department terminates interim status pursuant to subsection (8) of this section.

(b) Interim status for the existing TSD facility shall be maintained while the department makes final administrative disposition of a final facility permit pursuant to WAC 173-303-806 if:

(i) The owner/operator has submitted his final facility permit application (as described in WAC 173-303-806)

within six months of the written request by the department to submit such application; and

(ii) Grounds for terminating interim status (as described in subsection (8) of this section) do not exist.

(c) The owner/operator of an interim status facility must update his Part A whenever he is managing wastes that are newly regulated under this chapter, and as necessary to comply with subsection (7) of this section. Failure to comply with this updating requirement is a violation of interim status.

(6) Prohibitions for interim status permits. Facilities with an interim status permit shall not:

(a) Treat, store, or dispose of dangerous waste not specified in Part A of the permit application;

(b) Employ processes not specified in Part A of the permit application; or

(c) Exceed the design capacities specified in Part A of the permit application.

(7) Changes during interim status.

(a) Dangerous wastes not previously identified in Part A of the application may be treated, stored, or disposed at a facility with interim status if the owner/operator submits to the department a revised Part A permit application prior to accepting the new dangerous wastes.

(b) Increases in the design capacity of processes used at a facility with interim status may be made if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change) and the department approves the change because of a lack of available treatment, storage, or disposal capacity at other permitted TSD facilities.

(c) Changes in the processes for the treatment, storage, or disposal of dangerous waste may be made at a facility with interim status, or additional processes may be added if the owner or operator submits a revised Part A permit application prior to such changes (along with a justification explaining the need for the change) and the department approves the change because:

(i) It is necessary to prevent a threat to public health or the environment because of an emergency situation; or

(ii) It is necessary to comply with state, local, or federal regulations.

(d) Changes in the ownership or operational control of a facility with interim status may be made if the new owner or operator submits a revised Part A permit application no later than ninety days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the interim status financial requirements of 40 CFR Part 265 subpart H (as referenced in WAC 173-303-400), until the new owner or operator has demonstrated to the department that he is complying with the financial requirements. All other interim status permit duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility. Upon demonstration to the department by the new owner or operator of compliance with the interim status financial requirement, the department shall notify the old owner or operator in writing that he no longer needs to comply with the interim status financial requirements as of the date of demonstration.

(e) In no event shall changes be made to a TSD facility under the interim status permit which amount to reconstruction of the facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable entirely new TSD facility.

(f) Any revisions to an existing interim status permit must be made on the applicable Part A form(s), (forms 1 or 3 are available from the department). The owner and operator certification page must be signed and included with those sections completed.

(8) Termination of interim status permit. The following are causes for terminating an interim status permit:

(a) Final administrative disposition of a final facility permit application is made pursuant to WAC 173-303-806;

(b) When the department on examination or reexamination of a Part A application determines that it fails to meet the applicable standards of this chapter, it may notify the owner or operator that the application is deficient and that the interim status permit has been revoked. The owner or operator will then be subject to enforcement for operating without a permit;

(c) Failure to submit a requested Part B application on time, or to provide in full the information required in the Part B application; or

(d) Violation of applicable interim status standards.

(9) Moderate risk waste facilities. If the department determines, pursuant to WAC 173-303-550 through 173-303-560, that interim status standards can be reduced, the department will issue a notice of interim status modification stating what standards will be applied. Failure to comply with the conditions and standards as stated in the notice of modification or with the requirements of this section shall form a basis for revoking the notice. Upon revocation of the notice of interim status modification by the department, the owner or operator shall be subject to all of the requirements applicable to interim status dangerous waste management facilities. Before issuing the notice of modification, the department shall provide public notice of its intent, shall allow thirty days for public comment, and shall hold a public hearing if there is a significant degree of public interest or there is written notice of opposition and the department receives a request for a hearing during the comment period. Notice of a public hearing shall be provided at least fifteen days in advance, and the public comment period shall be extended to include the date of the hearing if it will occur after the initial thirty-day comment period. Within fifteen days of the end of the public comment period the department shall, based on comments received, issue, modify and issue, or deny the notice of interim status modification. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-

85-10), § 173-303-805, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-805, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-805, filed 2/10/82.]

WAC 173-303-806 Final facility permits. (1) Applicability. This section applies to all dangerous waste facilities required to have a final facility permit. The final facility permit requirements are applicable to:

(a) Final status TSD facilities;

(b) Moderate risk waste management facilities; and

(c) Certain recycling facilities that are not exempt from the permit requirements.

(2) Application. Any person subject to the permit requirements of this section who intends to operate a new TSD facility must apply for a final facility permit. The department may, at any time, require the owner or operator of an existing TSD facility to apply for a final facility permit. Such owner or operator will be allowed one hundred eighty days to submit his application; the department may extend the length of the application period if it finds that there are good reasons to do so. The owner or operator of an existing TSD facility may voluntarily apply for a final facility permit at any time. Any person seeking a final facility permit shall complete, sign, and submit an application to the department. An application shall consist of a Part A permit form (which can be obtained from the department), and the contents of Part B as specified in subsection (4) of this section.

(3) Effective regulations. A final facility permit will include all applicable requirements of this chapter which are in effect on the date that the application for the permit is submitted to the department. If new regulations become effective between the date that the permit application is submitted and the date that public notice of the draft permit is issued under WAC 173-303-840(3), then the permit applicant may, at his option, request that the final facility permit include the new regulatory requirements and provide the additional information necessary to do so. Any other changes to the final facility permit will be in accordance with the permit modification requirements of WAC 173-303-830.

(4) Contents of Part B. Part B of a permit application shall consist of the information required in (a) through (h) of this subsection.

(a) General requirements. Part B of the permit application consists of the general information requirements of this subsection, and the specific information requirements in (b) through (h) of this subsection as applicable to the facility. The Part B information requirements presented in (a) through (h) of this subsection, reflect the standards promulgated in WAC 173-303-600. These information requirements are necessary in order for the department to determine compliance with WAC 173-303-600 through 173-303-670. If owners and operators of TSD facilities can demonstrate that the information prescribed in Part B cannot be provided to the extent required, the department may make allowance for submission of such information on a case-by-case basis. Information required in Part B shall be submitted to the department and signed in accordance with requirements in WAC 173-303-810(12). Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by a registered professional engineer. The following information is required for all TSD facilities, except as WAC 173-303-600(3) provides otherwise.

(i) A general description of the facility.

(ii) Chemical, biological, and physical analyses of the dangerous waste to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with WAC 173-303-600.

(iii) A copy of the waste analysis plan required by WAC 173-303-300(5) and, if applicable WAC 173-303-300 (5)(g).

(iv) A description of the security procedures and equipment required by WAC 173-303-310, or a justification demonstrating the reasons for requesting a waiver of this requirement.

(v) A copy of the general inspection schedule required by WAC 173-303-320(2): Include where applicable, as part of the inspection schedule, specific requirements in WAC 173-303-395 (1)(d), 173-303-630(6), 173-303-640(4), 173-303-650(4), 173-303-660 (4) and (5), 173-303-665(4), and 173-303-670(7).

(vi) A justification of any request for a waiver(s) of the preparedness and prevention requirements of WAC 173-303-340.

(vii) A copy of the contingency plan required by WAC 173-303-350: Include, where applicable, as part of the contingency plan, specific requirements in WAC 173-303-640(8), 173-303-650(5) and 173-303-660(6).

(viii) A description of procedures, structures, or equipment used at the facility to:

(A) Prevent hazards and contain spills in unloading/loading operations (for example, ramps, berms, pavement, special forklifts);

(B) Prevent run-off from dangerous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);

(C) Prevent contamination of water supplies;

(D) Mitigate effects of equipment failure and power outages; and

(E) Prevent undue exposure of personnel to dangerous waste (for example, protective clothing).

(ix) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with WAC 173-303-395 including documentation demonstrating compliance with WAC 173-303-395 (1)(c).

(x) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes (if appropriate); describe access road surfacing and load bearing capacity; show traffic control signals).

(xi) Facility location information;

(A) In order to determine the applicability of the earthquake fault criteria (WAC 173-303-420(3)) the

owner or operator of a new facility must identify the county in which the facility is proposed to be located.

(Comment: If the county is not listed in WAC 173-303-420 (3)(c), no further information is required to demonstrate compliance with WAC 173-303-420(3).)

(B) If the facility is proposed to be located in a county listed in WAC 173-303-420 (3)(c), the owner or operator shall demonstrate compliance with the seismic standard. This demonstration may be made using either published geologic data or data obtained from field investigations carried out by the applicant. The information provided must be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The information submitted must show that either:

(I) No faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault (which have displacement in Holocene time) within three thousand feet of a facility are present, based on data from: Published geologic studies; aerial reconnaissance of the area within a five-mile radius from the facility; an analysis of aerial photographs covering a three thousand foot radius of the facility; and if needed to clarify the above data, a reconnaissance based on walking portions of the area within three thousand feet of the facility; or

(II) If faults (to include lineations) which have had displacement in Holocene time are present within three thousand feet of a facility, no faults pass within two hundred feet of the portions of the facility where treatment, storage, or disposal of dangerous waste will be conducted, based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within two hundred feet of such portions of the facility data shall be obtained from a subsurface exploration (trenching) of the area within a distance no less than two hundred feet from portions of the facility where treatment, storage, or disposal of dangerous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within three thousand feet of the portions of the facility where treatment, storage, or disposal of dangerous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of faults found.

(C) Owners and operators of all facilities shall provide an identification of whether the facility is located within a one hundred-year floodplain. This identification must indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the one hundred-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a one hundred-year flood.

(Comment: Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency are available, they will normally be determinative of whether a facility is located within or outside of the one hundred-year floodplain. However, if the FIA map excludes an area (usually areas of the floodplain less than two hundred feet in width), these areas must be considered and a determination made as to whether they are in the one hundred-year floodplain. Where FIA maps are not available for a proposed facility location, the owner or operator must use equivalent mapping techniques to determine whether the facility is within the one hundred-year floodplain, and if so located, what the one hundred-year flood elevation would be.)

(D) Owners and operators of facilities located in the one hundred-year floodplain must provide the following information:

(I) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as the consequence of a one hundred-year flood;

(II) Structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout;

(III) If applicable, and in lieu of (a)(xi)(D)(I) and (II) of this subsection, a detailed description of procedures to be followed to remove dangerous waste to safety before the facility is flooded, including: Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility; a description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive dangerous waste in accordance with the regulations under this chapter; the planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use; and the potential for accidental discharges of the waste during movement.

(E) Existing facilities **not** in compliance with WAC 173-303-420(4) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(F) Owners and operators of all facilities shall provide all information necessary to demonstrate compliance with the shoreline siting standards of WAC 173-303-420(5).

(G) The owner or operator of a new disposal facility must provide all information necessary to demonstrate compliance with the sole source aquifer siting standards of WAC 173-303-420(6).

(xii) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the TSD facility in a safe manner as required to demonstrate compliance with WAC 173-303-330. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in WAC 173-303-330 (1)(d).

(xiii) A copy of the closure plan and, where applicable, the postclosure plan required by WAC 173-303-610

(3) and (8). Include, where applicable, as part of the plans, specific requirements in WAC 173-303-630(10), 173-303-640(5), 173-303-650(6), 173-303-655(8), 173-303-660(9), and 173-303-665(6).

(xiv) For existing disposal facilities, documentation that a notice has been placed in the deed or appropriate alternate instrument as required by WAC 173-303-610(10).

(xv) The most recent closure cost estimate for the facility prepared in accordance with WAC 173-303-620(3) plus a copy of the financial assurance mechanism adopted in compliance with WAC 173-303-620(4).

(xvi) Where applicable, the most recent postclosure cost estimate for the facility prepared in accordance with WAC 173-303-620(5) plus a copy of the financial assurance mechanism adopted in compliance with WAC 173-303-620(6).

(xvii) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of WAC 173-303-620(8). For a new facility, documentation showing the amount of insurance meeting the specification of WAC 173-303-620 (8)(a) and, if applicable, WAC 173-303-620 (8)(b), that the owner or operator plans to have in effect before initial receipt of dangerous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in WAC 173-303-620 (8)(c).

(xviii) A topographic map showing a distance of one thousand feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of TSD facilities located in mountainous areas should use large contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

(A) Map scale and date;

(B) One hundred-year floodplain area;

(C) Surface waters including intermittent streams;

(D) Surrounding land uses (residential, commercial, agricultural, recreational);

(E) A wind rose (i.e., prevailing windspeed and direction);

(F) Orientation of the map (north arrow);

(G) Legal boundaries of the TSD facility site;

(H) Access control (fences, gates);

(I) Injection and withdrawal wells both on-site and off-site;

(J) Buildings; treatment, storage, or disposal operations; or other structure (recreation areas, run-off control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.);

(K) Barriers for drainage or flood control; and

(L) Location of operational units within the TSD facility site, where dangerous waste is (or will be) treated, stored, or disposed (include equipment clean-up areas).

(Note – For large TSD facilities the department will allow the use of other scales on a case-by-case basis.)

(xix) Applicants may be required to submit such information as may be necessary to enable the department to carry out its duties under other state or federal laws as required.

(xx) Additional information requirements. The following additional information regarding protection of ground water is required from owners or operators of dangerous waste surface impoundments, waste piles, land treatment units, and landfills except as otherwise provided in WAC 173-303-645 (1)(b):

(A) A summary of the ground water monitoring data obtained during the interim status period under 40 CFR 265.90 through 265.94, where applicable;

(B) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including ground water flow direction and rate, and the basis for such identification (i.e., the information obtained from hydrogeologic investigations of the facility area);

(C) On the topographic map required under (a)(xviii) of this subsection, a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under WAC 173-303-645(6), the proposed location of ground water monitoring wells as required under WAC 173-303-645(8), and, to the extent possible, the information required in (a)(xx)(B) of this subsection;

(D) A description of any plume of contamination that has entered the ground water from a regulated unit at the time that the application was submitted that:

(I) Delineates the extent of the plume on the topographic map required under (a)(xviii) of this subsection;

(II) Identifies the concentration of each constituent throughout the plume or identifies the maximum concentrations of each constituent in the plume. (Constituents are those listed in WAC 173-303-9905, and any other constituents not listed there which have caused a managed waste to be regulated under this chapter.);

(E) Detailed plans and an engineering report describing the proposed ground water monitoring program to be implemented to meet the requirements of WAC 173-303-645(8);

(F) If the presence of dangerous constituents has not been detected in the ground water at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of WAC 173-303-645(9). This submission must address the following items specified under WAC 173-303-645(9):

(I) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of dangerous constituents in the ground water;

(II) A proposed ground water monitoring system;

(III) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(IV) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground water monitoring data;

(G) If the presence of dangerous constituents has been detected in the ground water at the point of compliance at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of WAC 173-303-645(10). The owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of WAC 173-303-645(11) except as provided in WAC 173-303-645 (9)(h)(v). To demonstrate compliance with WAC 173-303-645(10), the owner or operator must address the following items:

(I) A description of the wastes previously handled at the facility;

(II) A characterization of the contaminated ground water, including concentrations of dangerous constituents and parameters;

(III) A list of constituents and parameters for which compliance monitoring will be undertaken in accordance with WAC 173-303-645 (8) and (10);

(IV) Proposed concentration limits for each dangerous constituent and parameter, based on the criteria set forth in WAC 173-303-645 (5)(a), including a justification for establishing any alternate concentration limits;

(V) Detailed plans and an engineering report describing the proposed ground water monitoring system, in accordance with the requirements of WAC 173-303-645(8); and

(VI) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground water monitoring data; and

(H) If dangerous constituents or parameters have been measured in the ground water which exceed the concentration limits established under WAC 173-303-645(5), Table 1, or if ground water monitoring conducted at the time of permit application under 40 CFR 265.90 through 265.94 at the waste boundary indicates the presence of dangerous constituents from the facility in ground water over background concentrations, the owner or operator must submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of WAC 173-303-645(11). However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the department that alternate concentration limits will protect human health and the environment after considering the criteria listed in WAC 173-303-645(5). An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program which meets the requirements of WAC 173-303-645 (10) and (a)(xx)(F) of this subsection. To demonstrate compliance with WAC 173-303-645(11), the owner or operator must address, at a minimum, the following items:

(I) A characterization of the contaminated ground water, including concentrations of dangerous constituents and parameters;

(II) The concentration limit for each dangerous constituent and parameter found in the ground water as set forth in WAC 173-303-645(5);

(III) Detailed plans and an engineering report describing the corrective action to be taken; and

(IV) A description of how the ground water monitoring program will demonstrate the adequacy of the corrective action.

(b) Specific Part B information requirements for containers. Except as otherwise provided in WAC 173-303-600(3), owners or operators of facilities that store containers of dangerous waste must provide the following additional information:

(i) A description of the containment system to demonstrate compliance with WAC 173-303-630(7). Show at least the following:

(A) Basic design parameters, dimensions, and materials of construction including allowance for a twenty-five-year, twenty-four-hour storm;

(B) How the design promotes positive drainage control or how containers are kept from contact with standing liquids in the containment system;

(C) Capacity of the containment system relative to the volume of the largest container to be stored;

(D) Provisions for preventing or managing run-on;

(E) How accumulated liquids can be analyzed and removed to prevent overflow; and

(F) A description of the building or other protective covering for EHW containers;

(ii) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with WAC 173-303-630 (7)(c), including:

(A) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

(B) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids;

(iii) A description of the procedures for labeling containers;

(iv) Sketches, drawings, or data demonstrating compliance with WAC 173-303-630(8) (location of buffer zone and containers holding ignitable or reactive wastes) and WAC 173-303-630 (9)(c) (location of incompatible wastes), where applicable; and

(v) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with WAC 173-303-630 (9)(a) and (b), and 173-303-395 (1)(b) and (c).

(c) Specific Part B information requirements for tanks. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that use tanks to store or treat dangerous waste must provide the following information:

(i) References to design standards or other available information used (or to be used) in design and construction of the tank;

(ii) A description of design specifications including identification of construction materials and lining materials (include pertinent characteristics such as corrosion or erosion resistance);

(iii) Tank dimensions, capacity, and the basis for selecting shell thickness, certified by a licensed professional engineer;

(iv) A diagram of piping, instrumentation, and process flow;

(v) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents);

(vi) Description of procedures for handling incompatible ignitable, or reactive wastes, including the use of buffer zones;

(vii) A description of the containment system to demonstrate compliance with WAC 173-303-640 (2)(b) and, where applicable, WAC 173-303-640(8). Show at least the following:

(A) Drawings and a description of the basic design parameters, dimensions, and materials of construction of the containment system;

(B) Capacity of the containment system relative to the design capacity of the tank(s) within the system;

(C) Description of the system to detect leaks and spills, and how precipitation and run-on will be prevented from entering into the detection system;

(viii) A description of the marking and/or labeling of tanks; and

(ix) Tank design to prevent escape of vapors and emissions of acutely or chronically toxic (upon inhalation) EHW.

(d) Specific Part B information requirements for surface impoundments. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that store, treat, or dispose of dangerous waste in surface impoundments must provide the following additional information:

(i) A list of the dangerous wastes placed or to be placed in each surface impoundment;

(ii) Detailed plans and an engineering report describing how the surface impoundment is or will be designed, constructed, operated and maintained to meet the requirements of WAC 173-303-650(2). This submission must address the following items as specified in WAC 173-303-650(2):

(A) The liner system (except for an existing portion of a surface impoundment), including the certification required by WAC 173-303-650 (2)(a)(i)(D) for EHW management. If an exemption from the requirement for a liner is sought as provided by WAC 173-303-650 (2)(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any dangerous constituents into the ground water or surface water at any future time;

(B) Prevention of overtopping; and

(C) Structural integrity of dikes;

(iii) If any exemption from WAC 173-303-645 is sought, as provided by WAC 173-303-650(3), detailed plans and an engineering report explaining the location of the saturated zone in relation to the surface impoundment, and the design of a double-liner system that incorporates a leak detection system between the liners;

(iv) A description of how each surface impoundment, including the liner and cover systems and appurtenances for control of overtopping, will be inspected in order to meet the requirements of WAC 173-303-650 (4)(a) and (b). This information should be included in the inspection plan submitted under (a)(v) of this subsection;

(v) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under WAC 173-303-650 (4)(c). For new units, the owner or operator must submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(vi) A description of the procedure to be used for removing a surface impoundment from service, as required under WAC 173-303-650 (5)(b) and (c). This information should be included in the contingency plan submitted under (a)(vii) of this subsection;

(vii) A description of how dangerous waste residues and contaminated materials will be removed from the unit at closure, as required under WAC 173-303-650 (6)(a)(i). For any wastes not to be removed from the unit upon closure, the owner or operator must submit detailed plans and an engineering report describing how WAC 173-303-650 (6)(a)(ii) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the postclosure plan submitted under (a)(xiii) of this subsection;

(viii) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how WAC 173-303-650(7) will be complied with;

(ix) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how WAC 173-303-650(8) will be complied with; and

(x) Where applicable, a waste management plan for Dangerous Waste Nos. F020, F021, F022, F023, F026, or F027 describing how the surface impoundment is or will be designed to meet the requirements of WAC 173-303-650(9).

(e) Specific Part B information requirements for waste piles. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that store or treat dangerous waste in waste piles must provide the following additional information:

(i) A list of dangerous wastes placed or to be placed in each waste pile;

(ii) If an exemption is sought to WAC 173-303-660(2), and 173-303-645 as provided by WAC 173-303-660 (1)(c), an explanation of how the standards of WAC 173-303-660 (1)(c) will be complied with;

(iii) Detailed plans and an engineering report describing how the pile is or will be designed, constructed, operated, and maintained to meet the requirements of WAC 173-303-660(2). This submission must address

the following items as specified in WAC 173-303-660(2):

(A) The liner system (except for an existing portion of a pile), including the licensed engineer's certification when required by WAC 173-303-660 (2)(c). If an exemption from the requirement for a liner is sought, as provided by WAC 173-303-660 (2)(d), the owner or operator must submit detailed plans and engineering and hydrogeologic reports, as applicable, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(B) Control of run-on;

(C) Control of run-off;

(D) Management of collection and holding units associated with run-on and run-off control systems; and

(E) Control of wind dispersal of particulate matter, where applicable;

(iv) If an exemption from WAC 173-303-645 is sought as provided by WAC 173-303-660 (3) or (4), submit detailed plans and an engineering report describing how the requirements of WAC 173-303-660 (3)(a) or (4)(a) will be complied with;

(v) A description of how each waste pile, including the liner and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of WAC 173-303-660(5). This information should be included in the inspection plan submitted under (a)(v) of this subsection. If an exemption is sought to WAC 173-303-645 pursuant to WAC 173-303-660(4), describe in the inspection plan how the inspection requirements of WAC 173-303-660 (4)(a)(iii) will be complied with;

(vi) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(vii) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of WAC 173-303-660(7) will be complied with;

(viii) If incompatible wastes, or incompatible wastes and materials will be placed in a waste pile, an explanation of how WAC 173-303-660(8) will be complied with;

(ix) A description of how dangerous waste, waste residues and contaminated materials will be removed from the waste pile at closure, as required under WAC 173-303-660 (9)(a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering report describing how WAC 173-303-665 (6)(a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the postclosure plan submitted under (a)(xiii) of this subsection;

(x) Where applicable, a waste management plan for Dangerous Waste Nos. F020, F021, F022, F023, F026, or F027 describing how a waste pile that is not enclosed (as defined in WAC 173-303-660(1)(c)) is or will be designed, constructed, operated, and maintained to meet the requirements of WAC 173-303-660(10).

(f) Specific Part B information requirements for incinerators. Except as WAC 173-303-670(1) provides otherwise, owners and operators of facilities that incinerate dangerous waste must fulfill the informational requirements of (f) of this subsection.

(i) When seeking an exemption under WAC 173-303-670 (1)(b) (ignitable or reactive wastes only):

(A) Documentation that the waste is listed as a dangerous waste in WAC 173-303-080, solely because it is ignitable; or

(B) Documentation that the waste is listed as a dangerous waste in WAC 173-303-080, solely because it is reactive for characteristics other than those listed in WAC 173-303-090 (7)(a)(iv) and (v), and will not be burned when other dangerous wastes are present in the combustion zone; or

(C) Documentation that the waste is a dangerous waste solely because it possesses the characteristic of ignitability, as determined by the tests for characteristics of dangerous waste under WAC 173-303-090; or

(D) Documentation that the waste is a dangerous waste solely because it possesses the reactivity characteristics listed in WAC 173-303-090 (7)(a)(i), (ii), (iii), (vi), (vii), and (viii), and that it will not be burned when other dangerous wastes are present in the combustion zone.

(ii) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with WAC 173-303-807.

(iii) In lieu of a trial burn, the applicant may submit the following information;

(A) An analysis of each waste or mixture of wastes to be burned including:

(I) Heating value of the waste in the form and composition in which it will be burned;

(II) Viscosity (if applicable), or description of physical form of the waste, and specific gravity of the waste;

(III) An identification of any dangerous organic constituents listed in WAC 173-303-9905 or, if not listed, which cause the waste(s) to be regulated, which are present in the waste to be burned, except that the applicant need not analyze for constituents which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified in WAC 173-303-110(3), or their equivalent;

(IV) An approximate quantification of the dangerous constituents identified in the waste, within the precision produced by the analytical methods specified in WAC 173-303-110(3); and

(V) A quantification of those dangerous constituents in the waste which may be designated as principal organic dangerous constituents (PODC's) based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in WAC 173-303-670(4);

(B) A detailed engineering description of the incinerator, including:

(I) Manufacturer's name and model number of incinerator;

(II) Type of incinerator;

(III) Linear dimension of incinerator unit including cross sectional area of combustion chamber;

(IV) Description of auxiliary fuel system (type/feed);

(V) Capacity of prime mover;

(VI) Description of automatic waste feed cutoff system(s);

(VII) Stack gas monitoring and pollution control monitoring system;

(VIII) Nozzle and burner design;

(IX) Construction materials; and

(X) Location and description of temperature, pressure, and flow indicating devices and control devices;

(C) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in (f)(iii)(A) of this subsection. This analysis should specify the principal organic dangerous constituents (PODC's) which the applicant has identified in the waste for which a permit is sought, and any differences from the PODC's in the waste for which burn data are provided;

(D) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available;

(E) A description of the results submitted from any previously conducted trial burn(s) including:

(I) Sampling and analysis techniques used to calculate performance standards in WAC 173-303-670(4); and

(II) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement);

(F) The expected incinerator operation information to demonstrate compliance with WAC 173-303-670 (4) and (6), including:

(I) Expected carbon monoxide (CO) level in the stack exhaust gas;

(II) Waste feed rate;

(III) Combustion zone temperature;

(IV) Indication of combustion gas velocity;

(V) Expected stack gas volume, flow rate, and temperature;

(VI) Computed residence time for waste in the combustion zone;

(VII) Expected hydrochloric acid removal efficiency;

(VIII) Expected fugitive emissions and their control procedures; and

(IX) Proposed waste feed cutoff limits based on the identified significant operating parameters;

(G) Such supplemental information as the department finds necessary to achieve the purposes of this subsection;

(H) Waste analysis data, including that submitted in (f)(iii)(A) of this subsection, sufficient to allow the department to specify as permit principal organic dangerous constituents (permit PODC's) those constituents for which destruction and removal efficiencies will be required; and

(I) Test protocols and sampling and analytical data to demonstrate the designation status under WAC 173-303-070 of:

(I) Incinerator ash residues, if any; and

(II) Residues from the air pollution control devices.

(iv) The department shall approve a permit application without a trial burn if the department finds that:

(A) The wastes are sufficiently similar; and

(B) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under WAC 173-303-670(6)) operating conditions that will ensure that the performance standards in WAC 173-303-670(4) will be met by the incinerator.

(g) Specific Part B information requirements for land treatment facilities. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that use land treatment to dispose of dangerous waste must provide the following additional information:

(i) A description of plans to conduct a treatment demonstration as required under WAC 173-303-655(3). The description must include the following information:

(A) The wastes for which the demonstration will be made and the potential dangerous constituents in the waste;

(B) The data sources to be used to make the demonstration (e.g., literature, laboratory data, field data, or operating data);

(C) Any specific laboratory or field test that will be conducted, including:

(I) The type of test (e.g., column leaching, degradation);

(II) Materials and methods, including analytical procedures;

(III) Expected time for completion; and

(IV) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices;

(ii) A description of a land treatment program, as required under WAC 173-303-655(2). This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

(A) The wastes to be land treated;

(B) Design measures and operating practices necessary to maximize treatment in accordance with WAC 173-303-655 (4)(a) including:

(I) Waste application method and rate;

(II) Measures to control soil pH;

(III) Enhancement of microbial or chemical reactions; and

(IV) Control of moisture content;

(C) Provisions for unsaturated zone monitoring, including:

(I) Sampling equipment, procedures, and frequency;

(II) Procedures for selecting sampling locations;

(III) Analytical procedures;

(IV) Chain of custody control;

(V) Procedures for establishing background values;

(VI) Statistical methods for interpreting results; and

(VII) The justification for any dangerous constituents recommended for selection as principal dangerous constituents, in accordance with the criteria for such selection in WAC 173-303-655 (6)(a);

(D) A list of dangerous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to WAC 173-303-300;

(E) The proposed dimensions of the treatment zone;

(iii) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of WAC 173-303-655(4). This submission must address the following items:

(A) Control of run-on;

(B) Collection and control of run-off;

(C) Minimization of run-off of dangerous constituents from the treatment zone;

(D) Management of collection and holding facilities associated with run-on and run-off control systems;

(E) Periodic inspection of the unit. This information should be included in the inspection plan submitted under (a)(v) of this subsection; and

(F) Control of wind dispersal of particulate matter, if applicable;

(iv) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under WAC 173-303-655(5) will be conducted including:

(A) Characteristics of the food-chain crop for which the demonstration will be made;

(B) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

(C) Procedures for crop growth, sample collection, sample analysis, and data evaluation;

(D) Characteristics of the comparison crop including the location and conditions under which it was or will be grown; and

(E) If cadmium is present in the land treated waste, a description of how the requirements of WAC 173-303-655 (5)(b) will be complied with;

(v) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the postclosure care period, as required under WAC 173-303-655 (8)(a)(viii) and (c)(ii). This information should be included in the closure plan and, where applicable, the postclosure care plan submitted under (a)(xiii) of this subsection;

(vi) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of WAC 173-303-655(9) will be complied with; and

(vii) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how WAC 173-303-655(10) will be complied with.

(viii) Where applicable, a waste management plan for Dangerous Waste Nos. F020, F021, F022, F023, F026, or F027 describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of WAC 173-303-655(12).

(h) Specific Part B information requirements for landfills. Except as otherwise provided in WAC 173-303-600(3), owners and operators of facilities that dispose of dangerous waste in landfills must provide the following additional information;

(i) A list of the dangerous wastes placed or to be placed in each landfill or landfill cell;

(ii) Detailed plans and an engineering report describing how the landfill is or will be designed, constructed, operated and maintained to comply with the requirements of WAC 173-303-665(2). This submission must address the following items as specified in WAC 173-303-665(2):

(A) The liner system and leachate collection and removal system (except for an existing portion of a landfill), including the licensed engineer's certification required by WAC 173-303-665 (2)(a)(i). If an exemption from the requirements for a liner and a leachate collection and removal system is sought, as provided by WAC 173-303-665 (2)(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any dangerous constituent into the ground water or surface water at any future time;

(B) Control of run-on;

(C) Control of run-off;

(D) Management of collection and holding facilities associated with run-on and run-off control systems; and

(E) Control of wind dispersal of particulate matter, where applicable;

(iii) If an exemption from WAC 173-303-645 is sought, as provided by WAC 173-303-665(3), the owner or operator must submit detailed plans and an engineering report explaining the location of the saturated zone in relation to the landfill, the design of a double-liner system that incorporates a leak detection system between the liners, and a leachate collection and removal system above the liners;

(iv) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of WAC 173-303-665(4). This information should be included in the inspection plan submitted under (a)(v) of this subsection;

(v) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with WAC 173-303-665 (6)(a), and a description of how each landfill will be maintained and monitored after closure in accordance with WAC 173-303-665 (6)(b) and (c). This information should be included in the closure and postclosure plans submitted under (a)(xiii) of this subsection;

(vi) If ignitable or reactive wastes will be landfilled, an explanation of how the standards of WAC 173-303-665(7) will be complied with;

(vii) If incompatible wastes, or incompatible wastes and materials will be landfilled, an explanation of how WAC 173-303-665(8) will be complied with;

(viii) If bulk of noncontainerized liquid waste or wastes containing free liquids is to be landfilled, an explanation of how the requirements of WAC 173-303-665(9) will be complied with;

(ix) If containers of dangerous waste are to be landfilled, an explanation of how the requirements of WAC 173-303-665(10) will be complied with; and

(x) Where applicable, a waste management plan for Dangerous Waste Nos. F020, F021, F022, F023, F026, or F027 describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of WAC 173-303-665(11).

(5) Construction. A person may begin physical construction of a new facility, or of new portions of an existing facility if the new portions would amount to reconstruction under interim status (WAC 173-303-805(7)), only after submitting Part A and Part B of the permit application and receiving a final facility permit. All permit applications must be submitted at least one hundred eighty days before physical construction is expected to begin.

(6) Reapplications. Any dangerous waste facility with an effective final facility permit shall submit a new application one hundred eighty days prior to the expiration date of the effective permit, unless the department grants a later date provided that such date will never be later than the expiration date of the effective permit.

(7) Continuation of expiring permits.

(a) When the owner/operator submits a timely application for a final facility permit and the application is determined by the department to be complete pursuant to subsection (8) of this section, the facility is allowed to continue operating under the expiring or expired permit until the effective date of the new permit.

(b) When the facility is not in compliance with the conditions of the expiring or expired permit, the department may choose to do any of the following:

(i) Initiate enforcement action based upon the permit which has been continued;

(ii) Issue a notice of intent to deny the new permit. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(iii) Issue a new permit with appropriate conditions; and/or

(iv) Take other actions authorized by this chapter.

(8) Completeness. The department shall not issue a final facility permit before receiving a complete application, except for permits by rule or emergency permits. An application for a permit is complete when the application form and any supplemental information has been submitted to the department's satisfaction. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility or activity.

(9) Recordkeeping. Applicants shall keep records of all data used to complete the permit applications, and any supplemental information submitted to the department for a period of at least three years from the date the application is signed.

(10) General permit conditions. All final facility permits shall contain general permit conditions described in WAC 173-303-810.

(11) Permit duration.

(a) Final facility permits shall be effective for a fixed term not to exceed ten years.

(b) The department may issue any final facility permit for a duration that is less than the full allowable term.

(c) The term of a final facility permit shall not be extended beyond ten years, unless otherwise authorized under WAC 173-303-806(7).

(12) Grounds for termination. The following are causes for terminating a final facility permit during its term, or for denying a permit renewal application:

(a) Noncompliance by the permittee with any condition of the permit;

(b) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

(c) A determination that the permitted activity endangers public health or the environment and the hazard can only be controlled by permit modification or termination.

(13) Permit changes. All final facility permits shall be subject to the requirements of permit changes, WAC 173-303-830.

(14) Procedures for decision making. Issuance of final facility permits will be subject to the procedures for decision making described in WAC 173-303-840.

(15) Other requirements for final moderate risk and recycling facility permits. In lieu of issuing a final moderate risk or recycling facility permit, the department may, after providing opportunity for public comment in accordance with WAC 173-303-840, defer to a permit already issued under other statutory authority administered by the department (such as the State Water Pollution Control Act, chapter 90.48 RCW, the State Clean Air Act, chapter 70.94 RCW, etc.) which incorporates the requirements of this section, and WAC 173-303-500 through 173-303-520 for recycling facilities or WAC 173-303-550 through 173-303-560 for moderate risk facilities. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-806, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-806, filed 4/18/84.]

WAC 173-303-807 Trial burns for dangerous waste incinerator final facility permits. (1) Purpose and applicability. For purposes of determining operational readiness and establishing conditions in final facility permits for dangerous waste incinerators, the department may approve trial burns. Trial burns shall not exceed seven hundred twenty hours operating time, except that the department may extend the duration of this operational period once, up to seven hundred twenty additional hours, at the request of the owner/operator of the incinerator when good cause is shown. The procedures for requesting and approving trial burns are described in:

(a) Subsection (10) of this section for existing incinerators with interim status permits; and

(b) Subsection (11) of this section for new incinerators and for incinerators with final facility permits in which the owner/operator wishes to burn new wastes not currently included in the permit.

(2) Trial burn plan. The trial burn must be conducted in accordance with a trial burn plan prepared by the applicant and approved by the department. The trial burn plan will then become a condition of the permit and will include the following information:

(a) An analysis of each waste or mixture of waste to be burned which includes:

(i) Heating value of the waste in the form and composition in which it will be burned;

(ii) Viscosity (if applicable), or description of physical form of the waste, and specific gravity of the waste;

(iii) An analysis identifying any dangerous organic constituents listed in WAC 173-303-9905, and any other dangerous constituents which, although not listed, caused the waste to be regulated as a dangerous waste, which are reasonably expected to be present in the waste to be burned. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified or referenced in WAC 173-303-110, or their equivalent;

(iv) An approximate quantification of the dangerous constituents identified in the waste, within the precision produced by the analytical methods specified or referenced in WAC 173-303-110; and

(v) A quantification of those dangerous constituents in the waste which may be designated as principal organic dangerous constituents (PODC) based on data submitted from other trial or operational burns which demonstrate compliance with the performance standard in WAC 173-303-670(4);

(b) A detailed engineering description of the incinerator for which the trial burn permit is sought including:

(i) Manufacturer's name and model number of incinerator (if available);

(ii) Type of incinerator;

(iii) Linear dimensions of the incinerator unit including the cross sectional area of the combustion chamber;

(iv) Description of the auxiliary fuel system (type/feed);

(v) Capacity of the prime air mover;

(vi) Description of automatic waste feed cutoff system(s);

(vii) Stack gas monitoring and pollution control equipment;

(viii) Nozzle and burner design;

(ix) Construction materials; and

(x) Location and description of temperature, pressure, and flow indicating and control devices;

(c) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis;

(d) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the department's decision under subsection (5) of this section;

(e) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, air feed rate, use of auxiliary fuel, and other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator;

(f) A description of, and planned operating conditions for, any emission control equipment which will be used;

(g) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction;

(h) A detailed test protocol to sample and analyze the following for designation under WAC 173-303-070:

(i) Any incinerator ash residue collected in the incinerator; and

(ii) Any residues collected in the air pollution control devices; and

(i) Such other information as the department reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this section.

(3) Additional information required. The department, in reviewing the trial burn plan, shall evaluate the adequacy of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this section.

(4) Trial PODCs. Based on the waste analysis data in the trial burn plan, the department will specify as trial principal organic dangerous constituents (trial PODCs) those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial PODCs will be specified by the department based on its estimate of the difficulty of incineration of the constituents identified in the waste analysis, the concentration or mass in the waste feed, and the dangerous waste constituent or constituents identified in WAC 173-303-9905, or identified as causing the waste to be regulated as a dangerous waste.

(5) Approval of the plan. The department shall approve a trial burn plan if it finds that:

(a) The trial burn is likely to determine whether the incinerator performance standard required by WAC 173-303-670(4) can be met;

(b) The trial burn itself will not present an imminent hazard to public health or the environment;

(c) The trial burn will help the department to determine operating requirements to be specified under WAC 173-303-670(6); and

(d) The information sought in (a), (b), and (c) of this subsection cannot reasonably be developed through other means.

(6) Trial burns. During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

(a) A quantitative analysis of the trial PODCs in the waste feed to the incinerator;

(b) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial PODCs,

O_2, hydrogen chloride (HCl), carbon monoxide (CO) and dangerous combustion byproducts, including the total mass emission rate of byproducts as a percent of the total mass feed rate of PODCs fed to the incinerator;

(c) A quantitative analysis of the scrubber water (if any), ash residues, and other residues, for the purpose of estimating the fate of the trial PODCs and whether they are designated according to WAC 173-303-070;

(d) A total mass balance of the trial PODCs in the waste;

(e) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in WAC 173-303-670 (4)(a);

(f) If the HCl emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency in accordance with WAC 173-303-670 (4)(c)(i);

(g) A computation of particulate emissions, in accordance with WAC 173-303-670 (4)(c)(ii);

(h) An identification of sources of fugitive emissions and their means of control;

(i) A measurement of average, maximum, and minimum temperatures, and combustion gas velocity;

(j) A continuous measurement of carbon monoxide in the exhaust gas;

(k) An identification of any existing air emission standards where a state or local air pollution control authority has established emission standards and such standards are applicable to the incinerator; and

(l) Such other information as the department may specify as necessary to ensure that the trial burn will determine compliance with the performance standard of WAC 173-303-670(4), and to establish the operating conditions required by WAC 173-303-670(6).

(7) Certification. The applicant shall submit to the department a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and must submit the results of all determinations required by subsection (6) of this section. This submission shall be made within thirty days of the completion of the trial burn, or later if approved by the department.

(8) Submission of data. All data collected during any trial burn must be submitted to the department following the completion of the trial burn.

(9) Signatures required. All submissions required under this section shall be certified on behalf of the applicant by the signature of a person authorized to sign a permit application under WAC 173-303-810(12).

(10) Existing incinerators with interim status permits.

(a) The owner/operator of an existing incinerator currently operating under an interim status permit may, when required by the department (or when he chooses) to apply for a final facility permit, request the department to approve of a trial burn. The trial burn may be requested for the purposes of determining feasibility of compliance with the performance standards of WAC 173-303-670(4) and the operating conditions of WAC 173-303-670(6). If a trial burn is requested, the owner/operator shall prepare and submit a trial burn plan and, upon approval by the department, perform a trial burn in accordance with subsections (2) through (9) of this section.

(b) If the department approves the trial burn, it shall issue a notice of interim status modification granting such approval and specifying the conditions applicable to the trial burn. The notice of modification shall be a condition of the interim status permit. Note: The national emission standards for hazardous air pollutants may require review for a notice of construction. Owners and operators should consult chapter 173-400 WAC or local air pollution control agency regulations for applicability.

(c) If the trial burn is approved before submitting a final facility permit application, the owner/operator shall complete the trial burn and submit the information described in subsection (6) of this section, with Part B of the permit application. If completion of this process conflicts with the date set for submission of Part B of the final facility permit application, the owner/operator must contact the department to extend the date for submitting the Part B or the trial burn results. If the applicant submits a trial burn plan with Part B of the final facility permit application, the department will specify in the notice of interim status modification issued under (b) of this subsection, a time period for conducting the trial burn and submitting the results.

(11) New incinerators and new wastes.

(a)(i) The owner/operator of a new incinerator may submit with Part B of a final facility permit application a request for approval of a trial burn. This request shall include a statement of why the trial burn is desirable, and a trial burn plan prepared in accordance with subsection (2) of this section.

(ii) The department shall proceed to issue a final facility permit in accordance with WAC 173-303-806. The permit shall include the trial burn plan, and shall establish operating conditions for the trial burn including but not limited to those described in WAC 173-303-670(6). The time period for conducting the trial burn and submitting the results shall also be specified in the permit.

(iii) After the trial burn has been completed and the results submitted to the department, the final facility permit shall be modified in accordance with WAC 173-303-830 (including minor modifications, if applicable) to establish the final operating requirements and performance standards for the incinerator.

(b) The owner/operator of an incinerator with a final facility permit who wishes to burn new wastes not currently included in his permit may request approval of a trial burn for the new wastes. The request and approval shall be handled in the same way as described in (a) of this subsection, except that in lieu of issuing an entirely new final facility permit the department will modify the existing final facility permit in accordance with WAC 173-303-830. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-807, filed 4/18/84.]

WAC 173-303-808 Demonstrations for dangerous waste land treatment final facility permits. (1) Purpose and applicability. This section is applicable to the

owner/operator of a land treatment facility who must demonstrate that his proposed treatment will be successful. The purpose of this section is to allow the department to issue a land treatment demonstration permit.

(2) Permit issuance. The department may issue a land treatment demonstration permit either in advance of or as part of a final facility permit so that the owner/operator of a land treatment facility can make the demonstration required in WAC 173-303-655(3). If issued in advance of the final facility permit, the land treatment demonstration permit shall be issued as described in subsection (3) of this section, as a demonstration permit only. If issued as part of the final facility permit, the land treatment demonstration and final facility permit shall be issued as described in subsection (4) of this section, as a phased permit. The determination for which procedure to follow will be made by the department based on the information submitted by the owner/operator in Part B of the final facility permit application.

(3) Demonstration permit only.

(a) If the department finds that the Part B does not contain enough information regarding the proposed treatment to allow the department to establish permit conditions necessary for compliance with all requirements of WAC 173-303-655, it may issue a land treatment demonstration permit only. The demonstration permit will be issued in accordance with the decision-making procedures of WAC 173-303-840. The demonstration permit may be issued either as a treatment or disposal permit, will cover only the field test or laboratory analyses, shall contain only those requirements necessary to meet the standards in WAC 173-303-655(3), and shall provide a specific time period for the demonstration. The department may extend the demonstration period as a modification (or minor modification, if applicable) to the demonstration permit.

(b) Within thirty days (unless the department approves a later date) of the end of the treatment demonstration, the owner/operator shall submit a revised Part B to the department containing the results of the field tests or laboratory analyses and all data developed during the demonstration period. The department shall then use the information and Part B to determine whether or not there is adequate information to issue a final facility permit which will incorporate conditions sufficient to provide compliance with all requirements of WAC 173-303-655. If the information is adequate, the department will proceed under WAC 173-303-806 to issue a final facility permit. If the information is not adequate, the department may, as the situation warrants, either issue a modification to the demonstration permit in accordance with the procedures of subsection (3)(a) of this section, or deny the final facility permit application.

(4) Phased permit.

(a) The department may issue a two-phase final facility permit if it finds that, based on information submitted in Part B of the permit application, substantial (although incomplete and inconclusive) information exists upon which to base the issuance of a final facility permit. The phased permit will be issued in the same manner as a final facility permit under WAC 173-303-806, except that it shall contain a first phase for making a land treatment demonstration, and a second phase (to become effective after completion of the first phase) for establishing conditions for operation of the land treatment facility.

(b) If the department finds that a phased permit may be issued, it will establish, as requirements in the first phase of the facility permit, conditions for conducting the field tests or laboratory analyses. These permit conditions will include design and operating parameters (including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone), monitoring procedures, post-demonstration cleanup activities, and any other conditions which the department finds may be necessary under WAC 173-303-655 (3)(c). The department will include conditions in the second phase of the facility permit to attempt to meet all WAC 173-303-655 requirements pertaining to unit design, construction, operation, and maintenance. The department will establish these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the Part B application.

(i) The first phase of the permit will be effective as provided in WAC 173-303-840 (8)(b).

(ii) The second phase of the permit will be effective as provided in (d) of this subsection.

(c) When the owner or operator who has been issued a two-phase permit has completed the treatment demonstration, he must submit to the department a certification, signed by a person authorized to sign a permit application or report under WAC 173-303-810(12), that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in phase one of the permit for conducting such tests or analyses. The owner or operator must also submit all data collected during the field tests or laboratory analyses within thirty days of completion of those tests or analyses unless the department approves a later date.

(d) If the department determines that the results of the field tests or laboratory analyses meet the requirements of WAC 173-303-655(3), it will modify the second phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with WAC 173-303-655, based upon the results of the field tests or laboratory analyses.

(i) This permit modification may proceed as a minor modification under WAC 173-303-830(4), provided any such change is minor, or otherwise will proceed as a modification under WAC 173-303-830(3).

(ii) If no modifications of the second phase of the permit are necessary, or if only minor modifications are necessary and have been made, the department will give notice of its final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of the final decision on the second phase of the permit. The second phase of the permit then will become effective as specified in WAC 173-303-840 (8)(b).

(iii) If modifications under WAC 173-303-830(3) are necessary, the second phase of the permit will become effective only after those modifications have been made.

(e) If the department determines that the results of the field tests or laboratory analyses do not meet the requirements of WAC 173-303-655(3), the second phase of the permit will not become effective, and the department will, as the situation warrants, either:

(i) Modify the permit according to WAC 173-303-830(3) to allow for additional field tests or laboratory analyses; or

(ii) Proceed to terminate the permit according to WAC 173-303-840. [Statutory Authority: Chapter 70-.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-808, filed 4/18/84.]

WAC 173-303-809 Demonstration permit for new chemical, physical, or biological treatment processes. (1) Purpose and applicability. This section applies to TSD facilities which will be chemically, physically, or biologically treating dangerous waste through new processes, and which are applying for a final facility permit. The purpose of this section is to provide permits which will allow new treatment processes (NTP) to operate and demonstrate the conditions of operation. The department will use the demonstration information developed under permits issued pursuant to this section to specify the final operating conditions in the final facility permit. Demonstration permits will not be issued under this section to applicants whose NTP will be treating dangerous waste which is also designated as hazardous waste under 40 CFR Part 261. Demonstration permits for trial burns or land treatment will not be issued under this section; they must be issued under WAC 173-303-807 and 173-303-808 respectively.

(2) Permit issuance. The department may issue a NTP demonstration permit either in advance of or as part of a final facility permit. The demonstration permit will include the demonstration and performance standards of subsection (3) of this section. If issued in lieu of the final facility permit, the NTP demonstration permit shall be issued as described in subsection (4) of this section. If issued as part of the final facility permit, the NTP demonstration permit and final facility permit shall be issued as described in subsection (5) of this section. The department will decide which permit issuance procedure will be followed based on information provided by the NTP applicant in Part B of the facility permit application.

(3) Demonstration and performance standards. This subsection describes the standards that will be included in a NTP demonstration permit to determine and establish the effectiveness of the NTP and the necessary final facility operating conditions. These standards will also assure that the NTP demonstration will be performed in a manner which will not pose a threat to public health and the environment.

(a) Demonstration. The NTP demonstration must be likely to show whether or not the NTP will effectively treat the dangerous waste. If the information provided by the applicant in his Part B application is determined by the department to be inadequate or to provide insufficient information regarding the likelihood of effective treatment, then a permit will not be issued under subsection (4) or (5) of this section. At a minimum, the NTP demonstration must:

(i) Accurately simulate the operating conditions of the NTP;

(ii) Specify the wastes and waste quantities to be treated and the duration of the demonstration;

(iii) Be likely to result in effective treatment; and

(iv) Obtain the following information during the demonstration:

(A) Data on the concentrations and quantities of dangerous and nondangerous wastes and constituents before and after treatment;

(B) Recommended changes in operating conditions that could provide for more effective treatment;

(C) Identification of situations which resulted in not meeting the operating conditions, or in releases of dangerous waste or constituents to the environment;

(D) Data from any required monitoring equipment and process control instruments, such as temperature or pressure gauges, level indicators, waste feed rate and flow meters, etc.;

(E) The effectiveness of any emergency control equipment or measures, when tested or implemented, such as shut off valves, spill containment systems, cleanup actions, etc.; and

(F) Such other information or data as required by the department.

(b) Performance. The NTP demonstration must be performed in a manner which will not pose a threat to public health or the environment. If the department determines, from the information provided by the applicant in his Part B application, that the NTP demonstration would pose a threat to public health or the environment, then a permit will not be issued under subsection (4) or (5) of this section. The NTP demonstration will be considered to pose a threat if it cannot comply with the performance standards of WAC 173-303-430(3).

(4) Demonstration permit only. If the department finds that the Part B application does not contain enough information regarding the NTP to establish the full final facility operating conditions, then the department will issue a demonstration permit only. This permit will be issued in accordance with the decision-making procedures of WAC 173-303-840, and will cover only the NTP demonstration. The duration of the demonstration, and applicable operating conditions and performance standards will be specified in the permit. The department may extend the demonstration as a modification (or minor modification, if applicable) to the permit.

Within thirty days of the end of the demonstration, the owner/operator shall provide to the department the information obtained under subsection (2)(a)(iv) of this section, and a revised Part B application covering any necessary changes or new operating conditions. Based on the adequacy of the information and the revised Part B application, the department will either:

(a) Issue a final facility permit under WAC 173-303-806, if the available information is sufficient to establish all necessary operating conditions; or

(b) Issue a phased permit under subsection (5) of this section, if the available information is nearly sufficient to establish the necessary operating conditions; or

(c) Deny the final facility permit under WAC 173-303-840, if the available information indicates that the NTP cannot operate without posing a threat to public health or the environment.

(5) Phased permit. If the department finds that the Part B application contains substantial information regarding the NTP that would be sufficient to establish nearly all final operating conditions, then the department may issue a two-phase final facility permit. This phased permit will be issued in the same manner as a final facility permit under WAC 173-303-806, except that it shall contain a first phase for a NTP demonstration, and a second phase (to become effective as described in (b) of this subsection) for establishing the NTP facility operating conditions.

(a) First phase. The department will establish, as requirements in the first phase of the permit, conditions for conducting the NTP demonstration. The NTP demonstration may be conducted, if approved by the department, as an actual trial run of the NTP facility itself. The demonstration conditions will include design and operating parameters, demonstration duration, monitoring procedures, information to be collected pursuant to subsection (2)(a)(iv) of this section, performance standards, and such other conditions deemed appropriate by the department.

Upon completion of the first phase, the owner/operator must submit to the department a certification, signed by a person authorized to sign a permit application or report under WAC 173-303-810(12), that the NTP demonstration has been carried out in accordance with the conditions specified in the first phase of the permit. The owner/operator must also submit a report containing all information and data collected and identifying any significant problems encountered during the demonstration. The owner/operator shall not implement the second phase of his permit until after the certification and report have been submitted to the department, and he has been notified by the department in accordance with (b) of this subsection that the second phase of his permit is effective.

(b) Second phase. The department will establish, as requirements in the second phase of the permit, final operating conditions for the NTP facility. These conditions will, to the maximum extent possible given the information available and provided in the Part B application, include all applicable requirements necessary to comply with the final facility standards of this chapter (including, but not limited to, WAC 173-303-600 through 173-303-670 and 173-303-806). The second phase shall also identify those operating conditions which are reasonably expected to change as a result of information developed during the first phase demonstration, and the maximum extent to which those conditions are expected to change. The second phase shall also specify what criteria, if met, will result in a need to terminate the permit or to make a major modification to the permit under WAC 173-303-830 because of new information developed during the first phase.

Upon completion of the first phase, the department will review the certification and report submitted pursuant to (a) of this subsection. Based on the new information provided in the certification and report, the department will either:

(i) Notify the owner/operator that the second phase of his permit is effective immediately, if the new information indicates that the second phase is adequate and no changes are necessary; or

(ii) Notify the owner/operator that the second phase of his permit will not be effective until changes to the second phase are made, if the new information indicates that the requirements of the second phase must be changed.

(A) If the necessary changes have already been identified in the second phase prior to permit issuance and the changes are no greater in extent than already identified in the second phase, then the department shall immediately make the appropriate changes to the requirements in the second phase of the permit. Upon completing the changes, the department shall notify the owner/operator of the changes and that, as soon as the owner/operator has included the new requirements into his facility operations, the second phase of his permit is effective.

(B) If the necessary changes are not already identified, or are greater than the extent specified in the second phase so that the changes cannot be included as provided in (b)(ii)(A) of this subsection, or if the necessary changes meet the criteria already specified in the second phase as being cause for major modification of the permit, then the department will proceed to modify the permit in accordance with WAC 173-303-830(3). The second phase of the permit will be effective only after the permit modifications have been made and the department has notified the owner/operator that his permit is effective; or

(iii) Notify the owner/operator that the second phase will not be effective and that his permit will be terminated, if the new information indicates radical problems with the NTP that cannot be addressed through a permit modification, or if the new information meets the criteria already specified in the second phase as being cause for termination of the permit. Permit termination will proceed in accordance with WAC 173-303-830(5). [Statutory Authority: Chapter 70.105 RCW. 84-14-031 (Order DE 84-22), § 173-303-809, filed 6/27/84.]

WAC 173-303-810 General permit conditions. (1) Purpose and applicability. This section sets forth the general permit conditions that are applicable to all permits, except interim status permits and permits by rule, to assure compliance with this chapter. If the conditions of this section are incorporated in a permit by reference, a specific citation to this section must be given in the permit.

(2) Duty to comply. The permittee must comply with all conditions of his permit. Any permit noncompliance constitutes a violation and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee need not comply with the conditions of his permit to the extent and for the duration such noncompliance is authorized in an emergency permit.

(3) Duty to reapply. If the permittee wishes to continue an activity regulated by the permit after its expiration date, the permittee must apply for and obtain a new permit.

(4) Duty to halt or reduce activity. A permittee who has not complied with his permit, and who subsequently is subject to enforcement actions, may not argue that it would have been necessary to halt or reduce the permitted activities in order to maintain compliance with the conditions of the permit.

(5) Duty to mitigate. The permittee shall take all steps required by the department to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit.

(6) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(7) Permit actions. The permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance, does not stay any permit condition.

(8) Effect of a permit. The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege. The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local laws or regulations.

(9) Duty to provide information. The permittee shall furnish to the department, within a reasonable time, any information which it may request to determine whether cause exists for modifying, revoking and reissuing, or terminating a permit, or to determine compliance with a permit. The permittee shall also furnish to the department, upon request, copies of records required to be kept by the permit.

(10) Inspection and entry. The permittee shall allow representatives of the department, upon the presentation of proper credentials, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

(d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by chapter 173-303 WAC, any substances or parameters at any location.

(11) Monitoring and monitoring records. (a) All permits shall specify:

(i) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods; and

(ii) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring.

(b) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(c) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the department at any time.

(d) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(e) The permittee shall maintain all records of ground water quality and ground water surface elevations for the active life of the facility, and for the post-closure period as well.

(12) Signatory requirement. All applications, reports, or information submitted to the department shall be signed in accordance with WAC 173-303-810(12) and shall be certified according to WAC 173-303-810(13).

(a) Applications. When a dangerous waste facility is owned by one person, but is operated by another person, it is the duty of the operator and owner to obtain and cosign the permit application. The permit application shall be signed as follows:

(i) For a corporation: By a responsible corporate officer. For the purposes of this subsection, a responsible corporate officer means:

(A) A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(B) The manager of one or more manufacturing, production or operating facilities employing more than two hundred fifty persons or having gross annual sales or expenditures exceeding twenty-five million dollars (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(ii) For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

(iii) For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes:

(A) The chief executive officer of the agency; or

(B) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

(b) Reports. All reports required by permits and other information requested by the department shall be signed by a person described in (a) of this subsection, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(i) The authorization is made in writing by a person described in (a) of this subsection;

(ii) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(iii) The written authorization is submitted to the department.

(c) Changes to authorization. If an authorization under (b) of this subsection is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) of this subsection must be submitted to the department prior to or together with any reports, information, or applications to be signed by an authorized representative.

(13) Certification. Any person identified in subsection (12) of this section as appropriate for signing the documents required for a permit application shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(14) Reporting. The following reports shall be provided:

(a) Planned changes. The permittee shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. For a new TSD facility and for a facility being modified, the permittee may not treat, store, or dispose of dangerous waste in the new or modified portion of the facility until:

(i) The permittee has submitted to the department by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and either

(ii) The department has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

(iii) Within fifteen days of the date of submission of the letter, the permittee has not received notice from the department of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of dangerous waste.

(b) Anticipated noncompliance. The permittee shall give advance notice to the department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers. The permit is not transferable to any person except after notice to the department. The department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary.

(d) Monitoring reports. Monitoring results (including monitoring of the facility's impacts as required by the applicable sections of this chapter) shall be reported at the intervals specified elsewhere in the permit.

(e) Compliance schedules. Reports of permit compliance or noncompliance or any progress reports on interim and final permit requirements contained in any compliance schedule shall be submitted no later than fourteen days following each scheduled date.

(f) Immediate reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment. Information shall be provided orally to the department as soon as the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances provided that the department may waive the written submission requirement in favor of a written report, to be submitted within fifteen days. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

Information which must be reported immediately shall include:

(i) Release of dangerous waste that may cause an endangerment to drinking water supplies or ground or surface waters;

(ii) Any information of a release or discharge of dangerous waste, fire, or explosion from the permitted facility which could threaten the environment or human health outside the facility;

(iii) The following description of any such occurrence:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident;

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

(g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under (d), (e), and (f) of this subsection, at the time monitoring reports are submitted. The reports shall contain the information listed in (f) of this subsection.

(h) Other information. Where the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the department, he shall promptly submit this information.

(i) Other reports. In addition, the following reports are required when appropriate:

(i) Manifest discrepancy report as required by WAC 173-303-370(5);

(ii) Unmanifested waste report as required by WAC 173-303-390(1); and

(iii) Annual report as required by WAC 173-303-390(2).

(15) Confidentiality.

(a) Information submitted by the owner/operator of a facility identified as confidential will be treated in accordance with chapter 42.17 RCW and RCW 43.21A.160.

(b) Proprietary information can be held confidential if the owner/operator indicates to the department the degree of harm if the information is made to the public.

(c) Claims of confidentiality for permit application information must be substantiated at the time the application is submitted and in the manner prescribed in the application instructions. Claims of confidentiality for the name and address of any permit applicant will be denied.

(d) If a submitter does not provide substantiation, the department will notify the owner/operator by certified mail of the requirement to do so. If the department does not receive the substantiation within ten days after the submitter receives the notice, the department shall place the unsubstantiated information in the public file.

(e) The department will determine if the owner/operator's request meets the confidential information criteria. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-810, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-810, filed 2/10/82.]

WAC 173-303-815 (Reserved.) [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-815, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-815, filed 2/10/82.]

WAC 173-303-820 (Reserved.) [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-820, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-820, filed 2/10/82.]

WAC 173-303-825 (Reserved.) [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-825, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-825, filed 2/10/82.]

WAC 173-303-830 Permit changes. (1) Purpose and applicability. This section describes the types of permit changes that may be made to all permits issued by the department. This section does not apply to permits by rule or interim status permits.

(2) Transfer of permits. A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued under subsection (3) of this section, or a minor modification has been made to identify the new permittee and incorporate such other requirements as stipulated under subsection (4) of this section.

(3) Modification or revocation and reissuance of permits. When the department receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit, receives a request for modification or revocation and reissuance, or conducts a review of the permit file), the department may determine whether or not one or more of the causes listed in (a) and (b) of this subsection for modification or revocation and reissuance or both exist. If cause exists, the department may modify or revoke and reissue the permit accordingly and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. If cause does not exist under subsection (3) or (4) of this section, the department shall not modify or revoke and reissue the permit. If a permit modification satisfies the criteria in subsection (4) of this section for "minor modifications," the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and public review provided in accordance with WAC 173-303-840.

(a) Causes for modification. The following are causes for modification but not revocation and reissuance of permits, unless agreed to or requested by the permittee:

(i) Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(ii) Information. Permits may be modified during their terms if the department receives information that was not available at the time of permit issuance and which would have justified the application of different permit conditions at the time of issuance;

(iii) New regulations. The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only when:

(A) The permit condition requested to be modified was based on an effective regulation; and

(B) The department has revised, withdrawn, or modified that portion of the regulation on which the permit condition was based; and either

(I) The department decides to modify the permit because there would be a potential threat to public health or the environment if the permit does not incorporate the requirements of the amended regulation; or

(II) A permittee requests modification within ninety days after the date the regulation amendments are adopted;

(iv) Compliance schedules. The department determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage, or other events over which the permittee has little or no control and for which there is no reasonably available remedy;

(v) Closure plans or postclosure. When modification of a closure or postclosure plan is required under WAC 173-303-610 (3) or (8);

(vi) Revocation of changes approved prior to notice of closure. After the department receives the notification of expected closure under WAC 173-303-610(3), the department may determine that previously approved changes are no longer warranted. These include:

(A) Extension of the ninety or one hundred eighty day periods under WAC 173-303-610(4);

(B) Modification of the thirty year postclosure period under WAC 173-303-610(7);

(C) Continuation of security requirements under WAC 173-303-610(7); or

(D) Permission to disturb the integrity of the containment system under WAC 173-303-610(7);

(vii) When the permittee has filed a request under WAC 173-303-620 for a variance to the level of financial responsibility or when the department demonstrates under WAC 173-303-620 that an upward adjustment of the level of financial responsibility is required;

(viii) When the corrective action program specified in the permit under WAC 173-303-645 has not brought the regulated unit into compliance with the ground water protection standard within a reasonable period of time;

(ix) To include a detection monitoring program meeting the requirements of WAC 173-303-645, when the owner or operator has been conducting a compliance monitoring program under WAC 173-303-645 or a corrective action program under WAC 173-303-645 and compliance period ends before the end of the postclosure care period for the unit;

(x) When a permit requires a compliance monitoring program under WAC 173-303-645, but monitoring data collected prior to permit issuance indicate that the facility is exceeding the ground water protection standard;

(xi) To include conditions applicable to units at a facility that were not previously included in the facility's permit; or

(xii) When a land treatment unit is not achieving complete treatment of dangerous constituents under its current permit conditions.

(b) Causes for modification or revocation and reissuance. The following are causes to modify, or alternatively, revoke and reissue a permit:

(i) Cause exists for termination under WAC 173-303-806(11) for final facility permits, and the department determines that modification or revocation and reissuance is appropriate; or

(ii) The department has received notification of a proposed transfer of the permit.

(c) Facility siting. Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.

(4) Minor modifications of permits. Unless the permittee indicates otherwise, the department may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section without following the procedures of WAC 173-303-840. Any permit modification not processed as a minor modification under this section must be made for cause and with a draft permit and public notice as required in WAC 173-303-840. Minor modifications may only be made to:

(a) Correct typographical errors;

(b) Require more frequent monitoring or reporting by the permittee;

(c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than one hundred twenty days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

(d) Allow for a change in ownership or operational control of a facility where the department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the department;

(e) Change the lists of facility emergency coordinators or equipment in the permit's contingency plan;

(f) Change the following:

(i) Estimates of maximum inventory under WAC 173-303-610 (3)(a)(ii);

(ii) Estimates of expected year of closure or schedules for final closure under WAC 173-303-610 (3)(a)(iv); or

(iii) Approve periods longer than ninety days or one hundred eighty days under WAC 173-303-610 (4)(a) or (b);

(g) Change the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided that the change is minor;

(h) Change the operating requirements set in the permit for conducting a trial burn, provided that the change is minor;

(i) Grant one extension of the time period for determining operational readiness following completion of construction, for up to seven hundred twenty hours operating time for treatment of dangerous waste in an incinerator;

(j) Change the treatment program requirements for land treatment units under WAC 173-303-655(2) to improve treatment of dangerous constituents, provided that the change is minor;

(k) Change any conditions specified in the permit for land treatment units to reflect the results of field tests or laboratory analyses used in making a treatment demonstration in accordance with WAC 173-303-808, provided that the change is minor; and

(l) Allow a second treatment demonstration for land treatment to be conducted when the results of the first demonstration have not shown the conditions under which the waste or wastes can be treated completely as required by WAC 173-303-655, provided that the conditions for the second demonstration are substantially the same as the conditions for the first demonstration.

(5) Permit termination. The department shall follow the applicable procedures in WAC 173-303-840, procedures for decision making, in terminating any permit. The following are causes for terminating a permit during its term or for denying a permit renewal application:

(a) Noncompliance by the permittee with any condition of the permit;

(b) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

(c) A determination that the permitted activity endangers public health or the environment and can only be regulated to acceptable levels by permit modification or termination.

(6) Schedules of compliance.

(a) General. The permit may, when appropriate, specify a schedule of compliance leading to compliance with chapter 173-303 WAC.

(b) Time for compliance. Any schedules of compliance under this section shall require compliance as soon as possible.

(c) Interim dates. If a permit establishes a schedule of compliance which exceeds one year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement as follows;

(i) The time between interim dates shall not exceed one year; or

(ii) If the time necessary for completion of any interim requirement (such as the construction of a control facility) is more than one year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(d) Reporting. The permit shall be written to require that no later than fourteen days following each interim date and the final date of compliance, the permittee shall notify the department in writing of its compliance or noncompliance with the interim or final requirements. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-830, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-830, filed 2/10/82.]

WAC 173-303-840 Procedures for decision making. (1) Application and completeness.

(a) The department will not begin the processing of a permit until the applicant has fully complied with the application requirements for the permit. Permit applications must comply with the signature and certification requirements of WAC 173-303-810 (12) and (13).

(b) The department shall review for completeness each application for a permit under this chapter. Each application for a permit should be reviewed for completeness within sixty days of its receipt. Upon completing the review, the department shall notify the applicant in writing whether or not the application is complete. If the application is incomplete, the department shall list the information necessary to make the application complete, and shall specify in the notice of deficiency a date for submitting the necessary information. After the application is completed, the department may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material. Requests for such additional information will not render an application incomplete.

(c) If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken under chapter 70.105 RCW.

(d) If the department decides that a site visit is necessary for any reason in conjunction with the processing of an application, then the department shall notify the applicant and a date shall be scheduled.

(e) The effective date of an application is the date on which the department notifies the applicant that the application is complete as provided in (b) of this subsection.

(2) Draft permits.

(a) A draft permit is a document prepared by the department indicating the tentative decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(b) When an application is completed, the department shall tentatively decide whether to prepare a draft permit, or to deny the application.

(c) If the department tentatively decides to deny the permit application, then the department shall issue a notice of intent to deny. A notice of intent to deny the permit application is a type of draft permit which follows the same procedures as any draft permit prepared under this subsection. If the department's final decision is that the tentative decision to deny was incorrect, then the department shall withdraw the notice of intent to deny and proceed to prepare a draft permit under this subsection.

(d) If the department decides to prepare a draft permit, it shall contain the following information:

(i) All conditions applicable to permits under WAC 173-303-810;

(ii) Applicable conditions under WAC 173-303-830; and

(iii) All applicable standards for storage, treatment and disposal, and other permit conditions.

(e) All draft permits must be accompanied by a fact sheet that is supported by administrative record and made available for public comment.

(f) Fact sheet; statement of basis.

(i) A fact sheet shall be prepared for every draft permit for a major dangerous waste management facility, and for every draft permit which the department finds is the subject of wide-spread public interest or raises major issues.

(ii) The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. The department shall send this fact sheet to the applicant and, on request, to any other person.

(iii) The fact sheet shall include, when applicable:

(A) A brief description of the type of facility or activity which is the subject of the draft permit;

(B) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed, injected, emitted, or discharged;

(C) A brief summary of the basis for the draft permit conditions including supporting references;

(D) Reasons why any requested variances or alternatives to required standards do or do not appear justified; and

(E) A description of the procedures for reaching a final decision on the draft permit including:

(I) The beginning and ending dates of the comment period and the address where comments will be received;

(II) Procedures for requesting a hearing and the nature of that hearing;

(III) Any other procedures by which the public may participate in the final decision; and

(IV) Name and telephone number of a person to contact for additional information.

(iv) The department shall prepare a statement of basis for every draft permit for which a fact sheet is not prepared. The statement of basis shall briefly describe the derivation of the conditions of the draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons supporting the tentative decision. The statement of basis shall be sent to the applicant and, on request, to any other person.

(3) Public notice and involvement.

(a) The department shall give public notice that the following actions have occurred:

(i) A draft permit has been prepared or an application is tentatively being denied;

(ii) A hearing on a permit has been scheduled; or

(iii) An appeal on a permit has been filed with the pollution control hearings board.

(b) No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied. A written notice of the denial shall be given to the person who requested the permit change and to the permittee.

(c) The public notice may describe more than one permit or permit action.

(d) Public notice of the preparation of a draft permit, including a notice of intent to deny a permit application shall allow at least forty-five days for public comment. Public notice of a public hearing shall be given at least thirty days before the hearing.

(e) Public notice of activities described in this subsection shall be given by the following methods:

(i) By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits):

(A) The applicant;

(B) Any other agency which the department knows has issued or is required to issue a permit for the same activity or facility;

(C) Federal and state agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone management plans, the advisory council on historic preservation, state historic preservation officers, and other appropriate government authorities, including any affected states;

(D) Persons on the mailing list developed by:

(I) Including those who request in writing to be on the list;

(II) Soliciting persons for an area list from participants in past permit proceedings in that area; and

(III) Notifying the public of the opportunity to be put on the mailing list through periodic publications in the public press and in appropriate publications of the department;

(E) Any unit of local government having jurisdiction over the area where the facility is proposed to be located, and each state agency having any authority under state law with respect to construction or operation of such facility;

(ii) For major permits, by publication of a notice in a daily or weekly newspaper within the area affected by the facility;

(iii) For all permits, by publication of notice in a daily or weekly major local newspaper of general circulation, and local radio broadcast of the public notice; and

(iv) By any other method reasonably calculated to give notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(4) Contents of the public notice.

(a) All public notices issued shall contain the following minimum information:

(i) Name and address of the office processing the permit action for which notice is being given;

(ii) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(iii) A brief description of the business conducted at the facility or activity described in the permit application or the draft permit;

(iv) Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, fact sheet or statement of basis, and the application;

(v) A brief description of the comment procedures and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision;

(vi) And any additional information considered necessary or proper.

(b) In addition to the general public notice described in (a) of this subsection, public notice of a hearing under subsection (5) of this section shall contain the following information:

(i) Date, time, and place of the hearing;

(ii) Reference to the date of the previous public notice relating to the permit; and

(iii) A brief description of the nature and purpose of the hearing including the applicable rules and procedures.

(c) In addition to the general public notice all persons identified in WAC 173-303-840 (3)(e)(i)(A), (B), and (C) shall be mailed a copy of the fact sheet, the permit application (if any), and the draft permit (if any).

(d) Public comments and request for public hearings. During the public comment period any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered according to WAC 173-303-840(9).

(5) Public hearings.

(a) The department shall hold a public hearing whenever, on the basis of requests, there is a significant degree of public interest in a draft permit or there is written notice of opposition and the director receives a request for a hearing during the forty-five day comment period. The department also may hold a public hearing at its discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision. Public notice of the hearing shall be given as specified in WAC 173-303-840(3). Whenever possible, the department shall schedule a public hearing under this subsection at a location convenient to the nearest population center to the proposed facility.

(b) Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under WAC 173-303-840(3) shall automatically be extended to the close of any public hearing under this subsection. The hearing officer may also extend the comment period by so stating at the hearing.

(c) A tape recording or written transcript of the hearing shall be made available to the public.

(6) Obligation to raise issues and provide information during the public comment period.

(a) All persons, including applicants, who believe any condition of a draft permit is inappropriate, or that the department's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position, including all supporting material, by the close of the public comment period (including any public hearing) under WAC 173-303-840(3).

(b) All supporting materials shall be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of state or federal statutes and regulations, documents of general applicability, or other generally available reference materials. Commenters shall make supporting material not already included in the administrative record available to the department. A comment period longer than thirty days will often be necessary in complicated proceedings to give commenters a reasonable opportunity to comply with the requirements of this subsection. Commenters may request a longer comment period.

(7) Reopening of the public comment period. If any data, information, or arguments submitted during the public comment period, including information or arguments required under subsection (6) of this section, appear to raise substantial new questions concerning a permit, the department may take one or more of the following actions:

(a) Prepare a new draft permit, appropriately modified;

(b) Prepare a revised statement of basis, a fact sheet or revised fact sheet, and reopen the comment period; or

(c) Reopen or extend the comment period to give interested persons an opportunity to comment on the information or arguments submitted.

Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice shall define the scope of the reopening.

(8) Issuance and effective date of permit.

(a) After the close of the public comment period under WAC 173-303-840(5) on a draft permit, the department shall issue a final permit decision. The

department shall notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. For purposes of this section, a final permit means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(b) A final permit decision shall become effective thirty days after the service of notice of the decision, unless:

(i) A later effective date is specified in the decision; or

(ii) No comments requested a change in the draft permit, in which case the permit shall become effective immediately upon issuance.

(9) Response to comments. At the time that any final permit is issued, the department shall issue a response to comments. This response shall specify which provisions, if any, of the draft permit have been changed in the final permit decision and the reason for the change, and briefly describe and respond to all significant comments of the draft permit raised during the public comment period or during any hearing. The response to comments shall be available to the public.

(10) Decision-making procedure for modification, revocation and reissuance, or termination of permits.

(a) Permits may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the department's initiative. However, permits may only be modified or revoked and reissued for the reasons specified in WAC 173-303-830 (3) and (4), or terminated for the reasons specified in WAC 173-303-805 or 173-303-806. All requests shall be in writing and shall contain facts or reasons supporting the request.

(b) If the department tentatively decides to modify or revoke and reissue a permit under WAC 173-303-830(3), it shall prepare the draft permit under WAC 173-303-840(2), incorporating the proposed changes. The department may request additional information and, in the case of a modified permit, may require the submission of an updated permit application. In the case of revoked and reissued permits, the department shall require the submission of a new application.

(c) In a permit modification under this section, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this section, the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

(d) "Minor modifications" as defined in WAC 173-303-830(4) are not subject to the requirements of this section.

(e) If the department tentatively decides to terminate an interim status permit under WAC 173-303-805 or a final permit under WAC 173-303-806, it shall issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures as any draft permit prepared under WAC 173-303-840(2). [Statutory Authority: Chapter 70.105 RCW. 84-14-031 (Order DE 84-22), § 173-303-840, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-840, filed 2/10/82.]

WAC 173-303-845 Appeal of decision. Any person who is adversely affected by a decision of the department under chapter 173-303 WAC may appeal the decision to the pollution control hearings board pursuant to chapter 43.21B RCW. [Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-845, filed 2/10/82.]

WAC 173-303-900 Public involvement and participation. (1) Intent. Public involvement and participation plays a significant role in the decision making process. The department intends to foster public awareness, information and consultation, and to respond actively to public concerns. The department will inform the public of major issues, proposed projects, and regulatory changes, and will consult interested and affected segments of the public before making important decisions. The overall goal of the department is to provide knowledge to the public about dangerous waste issues that vitally affect the state, to encourage broader understanding of the public role in dangerous wastes and their proper management, and to promote an open dialogue between the public, industry, and government.

(2) Applicable requirements. In fulfilling the intent of public involvement and participation in the decision making process, the department will refer to and, where applicable, follow the requirements and guidance set forth in the following:

(a) Chapter 34.04 RCW, Administrative Procedure Act;

(b) Chapter 34.08 RCW, Washington State Register Act of 1977;

(c) Chapter 42.17 RCW, Public Records Act;

(d) Chapter 197-10 WAC, Guidelines Interpreting and Implementing the State Environmental Policy Act;

(e) 40 CFR Part 25, Public Participation in Programs Under the Resource Conservation and Recovery Act, the Safe Drinking Water Act, and the Clean Water Act; and

(f) The Washington state solid waste management plan, December 1980. [Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-900, filed 2/10/82.]

WAC 173-303-910 Petitions. (1) General petitions.

(a) Any person may petition the department to modify or revoke any provision in this chapter. This subsection sets forth general requirements which apply to all such petitions. The remaining subsections of this section describe additional requirements for specific types of petitions.

(b) Each petition must be submitted to the department by certified mail and must include:

(i) The petitioner's name and address;

(ii) A statement of the petitioner's interest in the proposed action;

(iii) A description of the proposed action, including (where appropriate) suggested regulatory language; and

(iv) A statement of the need and justification for the proposed action, including any supporting tests, studies, or other information.

(c) The department will make a tentative decision to grant or deny the petition and give public notice of the tentative decision in writing. The notice shall be distributed to interested persons on a mailing list developed specifically for petitions and persons expressing interest in amendments to this chapter. The public comment period shall be a minimum of forty-five days.

(d) Upon the written request of any interested person, the director may, at his discretion, hold a conference to consider oral comments on the action proposed in the petition. A person requesting a conference must state the issues to be raised and explain why written comments would not suffice to communicate the person's views. The director may in any case decide on his own motion to hold a conference.

(e) After evaluating all public comments the department will make a final decision in accordance with RCW 34.04.060 or 34.04.080. The department will either deny the petition in writing (stating its reasons for denial), or grant the petition and, when appropriate, initiate rule-making proceedings in accordance with RCW 34.04.025.

(2) Petitions for equivalent testing or analytical methods.

(a) Any person seeking to add a testing or analytical method to WAC 173-303-110 may petition for a regulatory amendment under this section. To be successful, the person must demonstrate to the satisfaction of the department that the proposed method is equal to or superior to the corresponding method prescribed in WAC 173-303-110, in terms of its sensitivity, accuracy, and precision (i.e., reproducibility).

(b) Each petition must include, in addition to the information required by subsection (1) of this section:

(i) A full description of the proposed method, including all procedural steps and equipment used in the method;

(ii) A description of the types of wastes or waste matrices for which the proposed method may be used;

(iii) Comparative results obtained from using the proposed method with those obtained from using the relevant or corresponding methods prescribed in WAC 173-303-110;

(iv) An assessment of any factors which may interfere with, or limit the use of, the proposed method; and

(v) A description of the quality control procedures necessary to ensure the sensitivity, accuracy and precision of the proposed method.

(c) After receiving a petition for an equivalent testing or analytical method, the department may request any additional information on the proposed method which it may reasonably require to evaluate the proposal.

(d) If the department amends the regulations to permit use of a new testing method, the method will be incorporated in a document which will be available from the department.

(3) Petitions for exempting dangerous wastes from a particular generator.

(a) Any generator seeking to exempt his dangerous waste may petition the department for exemption from the requirements of WAC 173-303-070 through 173-303-103.

(b) To be successful, the generator must make the demonstrations required in WAC 173-303-072(3) and, where applicable, (4) and (5).

(c) Each petition must include, in addition to the information required by subsection (1) of this section:

(i) The name and address of the laboratory facility performing the sampling or tests of the waste;

(ii) The names and qualifications of the persons sampling and testing the waste;

(iii) The dates of sampling and testing;

(iv) The location of the generating facility;

(v) A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations, or feed materials can or might produce a waste that is not covered by the demonstration;

(vi) A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration;

(vii) Pertinent data on and discussion of the factors delineated in WAC 173-303-072(3) and, where applicable, (4) and (5);

(viii) A description of the methodologies and equipment used to obtain the representative samples;

(ix) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization and preservation of the samples;

(x) A description of the tests performed (including results);

(xi) The names and model numbers of the instruments used in performing the tests and the date of the last calibration for instruments which must be calibrated according to manufacturer's instructions; and

(xii) The following statement signed by the generator of the waste or his authorized representative:

> I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(d) After receiving a petition for a dangerous waste exemption, the department may request any additional information which it may reasonably require to evaluate the petition.

(e) An exemption will only apply to the waste generated by the particular generator covered by the demonstration and will not apply to waste from any other generator.

(f) The department may exempt only part of the waste for which the demonstration is submitted where there is reason to believe that variability of the waste justifies a partial exemption.

(g) The department may (but shall not be required to) grant a temporary exemption before making a final decision under subsection (1) of this section, whenever it finds that there is a substantial likelihood that an exemption will be finally granted.

(h) Any waste for which an exemption is sought will remain designated and be subject to the applicable requirements of this chapter until the generator of the waste is notified by the department that his waste is exempt.

(4) Petition for exclusion.

(a) Any generators seeking exclusion of a class of similar or identical wastes under WAC 173-303-071, excluded categories of waste, may petition the department for exclusion. To be successful, the generator(s) must make the demonstrations required in WAC 173-303-072(6) for all those wastes generated in the state which might be excluded pursuant to granting a petition submitted under this subsection. No class of wastes will be excluded if any of the wastes are regulated as hazardous waste under 40 CFR Part 261.

(b) Each petition for exclusion must include the information required by subsections (1) and (3)(c) of this section and any other information required by the department.

(c) After receiving a petition for exclusion, the department may request any additional information it deems necessary to evaluate the petition.

(5) Petition for designation change. The provisions of (a)(i) of this subsection do not apply to any dangerous waste which is also designated as a hazardous waste under 40 CFR Part 261 Subpart D.

(a) A generator may petition the department to change the designation of his waste as follows:

(i) A waste which is designated only for toxicity pursuant to WAC 173-303-084 or 173-303-101 but which is toxic solely because it is highly acidic or basic (i.e., due to high or low pH) may be subject only to the requirements for corrosive dangerous wastes, provided that the generator can demonstrate this fact to the department's satisfaction through information provided under (b) of this subsection; and

(ii) A waste which is designated EHW may be redesignated DW, provided that the generator can demonstrate that such redesignation is appropriate through information provided under (b) of this subsection.

(b) A petition under this subsection must include:

(i) The information required by subsections (1) and (3)(c) of this section; and

(ii) Such other information as required by the department.

(c) A designation change under this subsection will become effective only after the department has approved the change and notified the generator of such approval. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-910, filed 6/3/86; 84-14-031 (Order DE 84-22), § 173-303-910, filed 6/27/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-910, filed 2/10/82.]

WAC 173-303-950 Violations and enforcement. Any violation of this chapter may be subject to the enforcement and penalty sanctions of chapter 70.105 RCW. Such violations include, but are not limited to:

(1) Offering or transporting dangerous waste to a facility which does not have a permit;

(2) Transferring, treating, storing, or disposing of dangerous waste without a permit; or

(3) Falsely representing information in any application, label, manifest, record, report, permit, petition, or other document filed, maintained or used for the purpose of compliance with this chapter. [Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-950, filed 4/18/84.]

WAC 173-303-960 Special powers and authorities of the department. (1) Applicability. This section applies to departmental powers and authorities when taking actions against activities that may present an imminent and substantial endangerment to health or the environment.

(2) Notwithstanding any other provision of this chapter, upon receipt of evidence or with due cause the department believes that the handling, storage, treatment, transportation, recycling, or disposal of any dangerous waste or solid waste may present an imminent and substantial endangerment to health or the environment, the department may:

(a) Authorize an agency inspector to enter at reasonable times establishments regulated under this chapter for the purposes of inspection, monitoring, and sampling; and

(b) Direct the attorney general to bring suit on behalf of the state to immediately restrain any person contributing to such handling, storage, treatment, transportation, recycling, or disposal to immediately stop such handling, storage, treatment, transportation, recycling, or disposal or to take such other action as may be necessary. [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-960, filed 6/3/86.]

WAC 173-303-9901 Flow chart for designating dangerous wastes.

SEE ILLUSTRATION
(WAC 173-303-9901, Illus. 1)

1. Voluntary testing, allowed under WAC 173-303-070 (2)(b).
2. See WAC 173-303-081.
3. See WAC 173-303-082.
4. This section, WAC 173-303-083, is reserved, and is not applicable at the publication date of this chapter.
5. The discarded chemical products list appears in WAC 173-303-9903, and the dangerous waste sources list appears in WAC 173-303-9904.
6. See WAC 173-303-084.
7. See WAC 173-303-090. The dangerous waste characteristics include the properties of ignitability, corrosivity, reactivity, and EP toxicity.
8. Washington department of ecology may order testing pursuant to WAC 173-303-070(4).
9. See WAC 173-303-100.
10. As a dangerous waste generator you must comply with the requirements set forth under WAC 173-303-170.

[Statutory Authority: Chapter 70.105 RCW. 84-09-088 (Order DE 83-36), § 173-303-9901, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-9901, filed 2/10/82.]

WAC 173-303-9902 Narrative for designating dangerous wastes. (Reserved.) [Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-9902, filed 6/3/86. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-9902, filed 2/10/82.]

WAC 173-303-9903 Discarded chemical products list.

DISCARDED CHEMICAL PRODUCTS LIST

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
	ACUTELY DANGEROUS CHEMICAL PRODUCTS		
P023	Acetaldehyde, chloro-	EHW	B H
U001	Acetaldehyde	EHW	C
U034	Acetaldehyde, trichloro-	EHW	H
P002	Acetamide, N-(aminothioxomethyl)-	EHW	B
P057	Acetamide, 2-fluoro-	EHW	B H
P058	Acetic acid, fluoro-, sodium salt	EHW	A H
U144	Acetic acid, lead salt	EHW	D EP
P066	Acetimidic acid, N-[(methylcarbamoyl)oxy]thio-, methyl ester	EHW	B
U003	Acetonitrile	EHW	C I
P001	3-(alpha-Acetonyl-benzyl)-4-hydroxycoumarin and salts	EHW	A
P002	1-Acetyl-2-thiourea	EHW	B
U006	Acetyl chloride	EHW	C H O R
P003	Acrolein	EHW	X I
U007	Acrylamide	EHW	C
U008	Acrylic acid	EHW	C O I
U009	Acrylonitrile	EHW	C + I
P070	Aldicarb	EHW	B
P004	Aldrin	EHW	X H
P005	Allyl alcohol	EHW	B I
P006	Aluminum phosphide	EHW	B R
P007	5-(Aminomethyl)-3-isoxazolol	EHW	B
P008	4-Aminopyridine	EHW	B
P009	Ammonium picrate	EHW	R
P119	Ammonium vanadate	EHW	B
U012	Aniline	EHW	C I
P010	Arsenic acid	EHW	B
P012	Arsenic (III) oxide	EHW	B +
P011	Arsenic (V) oxide	EHW	B
P011	Arsenic pentoxide	EHW	B
P012	Arsenic trioxide	EHW	B +
P038	Arsine, diethyl-	EHW	B
U015	Azaserine	EHW	C +
P054	Aziridine	EHW	B +
U010	Azirino(2',3':3,4)pyrrolo(1,2a)indole-4,7-dione, 6-amino-8[((aminocarbonyl) oxy) methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-	EHW	B +
P013	Barium cyanide	EHW	A
U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	EHW	H P
U017	Benzal chloride	EHW	D H
U018	Benz[a]anthracene	EHW	P +
U018	1,2-Benzanthracene	EHW	P +
U094	1,2-Benzanthracene, 7,12-dimethyl-	EHW	C P
U012	Benzenamine	EHW	C I
P024	Benzenamine, 4-chloro-	EHW	C H
U049	Benzenamine, 4-chloro-2-methyl-	EHW	H
U093	Benzenamine, N,N-dimethyl-4-(phenylazo)-	EHW	C +
U158	Benzenamine, 4,4-methylenebis(2-chloro-	EHW	H +
P077	Benzenamine, 4-nitro-	EHW	D ?
P028	Benzene, (chloromethyl)-	EHW	B H +
U019	Benzene	EHW	C + I
U038	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester	EHW	H
U030	Benzene, 1-bromo-4-phenoxy-	EHW	H
U037	Benzene, chloro-	EHW	B H I
U190	1,2-Benzenedicarboxylic acid anhydride	EHW	C
U070	Benzene, 1,2-dichloro-	EHW	B H
U071	Benzene, 1,3-dichloro-	EHW	B H
U072	Benzene, 1,4-dichloro-	EHW	B H
U017	Benzene, (dichloromethyl)-	EHW	D H
U223	Benzene, 1,3-diisocyanatomethyl-	EHW	B R
U239	Benzene, dimethyl-	EHW	C I

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
U201	1,3-Benzenediol	EHW	C
U127	Benzene, hexachloro-	EHW	H
U056	Benzene, hexahydro-	EHW	C I
U188	Benzene, hydroxy-	EHW	C
U220	Benzene, methyl-	EHW	C I
U105	Benzene, 1-methyl-1-2,4-dinitro	EHW	C
U106	Benzene, 1-methyl-2,6-dinitro-	EHW	C
U055	Benzene, (1,methylethyl)-	EHW	C I
U169	Benzene, nitro-	EHW	C I
U183	Benzene, pentachloro	EHW	H
U185	Benzene, pentachloronitro-	EHW	D H +
U020	Benzenesulfonic acid chloride	EHW	D H O R
U020	Benzenesulfonyl chloride	EHW	D H O R
U207	Benzene, 1,2,4,5-tetrachloro-	EHW	D H
U023	Benzene, (trichloromethyl)-	EHW	H O R
P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methyl-amino)ethyl]-	EHW	B
P014	Benzenethiol	EHW	A
U021	Benzidine	EHW	B +
U022	Benzo[a]pyrene	EHW	P +
U022	3,4-Benzopyrene	EHW	P +
U197	p-Benzoquinone	EHW	C
U023	Benzotrichloride	EHW	H O R
U050	1,2-Benzphenanthrene	EHW	P +
P028	Benzyl chloride	EHW	B H +
P015	Beryllium dust	EHW	C +
U085	2,2'-Bioxirane	EHW	B I
U021	'1,1'-Biphenyl)-4,4'-diamine	EHW	B +
U073	(1,1'-Biphenyl-4,4'-diamine, 3,3'-dichloro-	EHW	H +
U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	EHW	C +
U024	Bis(2-chloroethoxy) methane	EHW	C H
U027	Bis(2-chloroisopropyl) ether	EHW	C H O
P016	Bis(chloromethyl) ether	EHW	B H +
U246	Bromine cyanide	EHW	C H
P017	Bromoacetone	EHW	C H
U225	Bromoform	EHW	H
U030	4-Bromophenyl phenyl ether	EHW	H
P018	Brucine	EHW	A
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	EHW	C H
U035	Butanoic acid, 4-[bis(2-chloroethyl) amino] benzene-	EHW	H +
U160	2-Butanone peroxide	EHW	B R
U053	2-Butenal	EHW	B I
U074	2-Butene, 1,4-dichloro-	EHW	C H I
U032	Calcium chromate	EHW	C + EP
P021	Calcium cyanide	EHW	B
P123	Camphene, octachloro-	EHW	X H
U178	Carbamic acid, methylnitroso-, ethyl ester	EHW	C +
U176	Carbamide, N-ethyl-N-nitroso-	EHW	C +
U177	Carbamide, N-methyl-N-nitroso-	EHW	C +
U219	Carbamide, thio-	EHW	C +
P103	Carbamimidoselenoic acid	EHW	B
U097	Carbamoyl chloride, dimethyl-	EHW	D H +
P022	Carbon bisulfide	EHW	D I ?
P022	Carbon disulfide	EHW	D I ?
U156	Carbonochloridic acid, methyl ester	EHW	B H I
U033	Carbon oxyfluoride	EHW	B H R
U211	Carbon tetrachloride	EHW	C H +
P095	Carbonyl chloride	EHW	B H
U033	Carbonyl fluoride	EHW	B H R
U035	Chlorambucil	EHW	H +
U036	Chlordane, technical	EHW	X H
P033	Chlorine cyanide	EHW	A H
U026	Chlornaphazine	EHW	H +
P023	Chloroacetaldehyde	EHW	B H
P024	p-Chloroaniline	EHW	C H
U037	Chlorobenzene	EHW	B H I
U039	4-Chloro-m-cresol	EHW	H
U041	1-Chloro-2,3-epoxypropane	EHW	C H + I
U042	2-Chloroethyl vinyl ether	EHW	C H
U044	Chloroform	EHW	C H +
U046	Chloromethyl methyl ether	EHW	D H + I
U047	beta-Chloronaphthalene	EHW	D H
U048	o-Chlorophenol	EHW	D H
P026	1-(o-Chlorophenyl)thiourea	EHW	A H
P027	3-Chloropropionitrile	EHW	B H
U049	4-Chloro-o-toluidine, hydrochloride	EHW	H
U032	Chromic acid, calcium salt	EHW	C + EP
U050	Chrysene	EHW	P +
P029	Copper cyanides	EHW	B
U052	Cresols	EHW	B
U052	Cresylic acid	EHW	B
U053	Crotonaldehyde	EHW	B I
U055	Cummene	EHW	C I
P030	Cyanides (soluble cyanide salts), not elsewhere specified	EHW	A
P031	Cyanogen	EHW	B I
U246	Cyanogen bromide	EHW	C H
P033	Cyanogen chloride	EHW	A H
U197	1,4-Cyclohexadienedione	EHW	C
U056	Cyclohexane	EHW	C I
U057	Cyclohexanone	EHW	C I
U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa-chloro-	EHW	X H
U058	Cyclophosphamide	EHW	C H + I
U240	2,4-D, salts and esters	EHW	B H
U060	DDD	EHW	C H +
U061	DDT	EHW	X H +
U142	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one	EHW	X H
U062	Diallate	EHW	C H +
U133	Diamine	EHW	B + R
U063	Dibenz[a,h]anthracene	EHW	A P +
U063	1,2:5,6-Dibenzanthracene	EHW	P + A
U064	1,2:7,8-Dibenzopyrene	EHW	P +
U064	Dibenz[a,i]pyrene	EHW	P +
U066	1,2-Dibromo-3-chloropropane	EHW	C H +
U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate	EHW	C H +
		EHW	C H +
U070	o-Dichlorobenzene	EHW	B H
U071	m-Dichlorobenzene	EHW	B H
U072	p-Dichlorobenzene	EHW	B H
U073	3,3'-Dichlorobenzidine	EHW	H +
U074	1,4-Dichloro-2-butene	EHW	C H I
U075	Dichlorodifluoromethane	EHW	H
U060	Dichloro diphenyl dichloroethane	EHW	C H +
U061	Dichloro diphenyl trichloroethane	EHW	X H +
U078	1,1-Dichloroethylene	EHW	C H +
U079	1,2-Dichloroethylene	EHW	D H
U025	Dichloroethyl ether	EHW	C H
U081	2,4-Dichlorophenol	EHW	D H
U082	2,6-Dichlorophenol	EHW	D H
U240	2,4-Dichlorophenoxyacetic acid, salts and esters	EHW	B H
P036	Dichlorophenylarsine	EHW	B H
U083	1,2-Dichloropropane	EHW	C H I
U084	1,3-Dichloropropane	EHW	C H
P037	Dieldrin	EHW	X H +
U085	1,2:3,4-Diepoxybutane	EHW	B I
P038	Diethylarsine	EHW	B
P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate	EHW	A
U087	O,O-Diethyl-S-methyl-dithiophosphate	EHW	B
P041	Diethyl-p-nitrophenyl phosphate	EHW	A
P040	O,O-Diethyl O-pyrazenyl phosphorothioate	EHW	A
P043	Diisopropyl fluorophosphate	EHW	B H
P044	Dimethoate	EHW	A
U092	Dimethylamine	EHW	C I
U093	Dimethylaminoazobenzene	EHW	C +
U094	7,12-Dimethylbenz[a]anthracene	EHW	C P
U095	3,3'-Dimethylbenzidine	EHW	C +
U096	alpha,alpha-Dimethylbenzylhydroperoxide	EHW	C R
U097	Dimethylcarbamoyl chloride	EHW	D H +
U099	1,2-Dimethylhydrazine	EHW	C + I
P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino)carbonyl] oxime	EHW	B
P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	EHW	A
P082	Dimethylnitrosamine	EHW	B +
P046	alpha, alpha-Dimethylphenethylamine	EHW	C
U103	Dimethyl sulfate	EHW	C O +
P047	4,6-Dinitro-o-cresol and salts	EHW	B
P034	4,6-Dinitro-o-cyclohexylphenol	EHW	C
P048	2,4-Dinitrophenol	EHW	B
U105	2,4-Dinitrotoluene	EHW	C
U106	2,6-Dinitrotoluene	EHW	C
P020	Dinoseb	EHW	B
U109	1,2-Diphenylhydrazine	EHW	C
P035	Diphosphoramide, octamethyl	EHW	?
U110	Dipropylamine	EHW	C I
U111	Di-n-propylnitrosamine	EHW	C +

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
P039	Disulfoton	EHW	A
P049	2,4-Dithiobiuret	EHW	A
P109	Dithiopyrophosphoric acid, tetraethyl ester	EHW	A
P050	Endosulfan	EHW	X H
P088	Endothall	EHW	B
P051	Endrin	EHW	X H
P042	Epinephrine	EHW	B
U001	Ethanal	EHW	C
U174	Ethanamine, N-ethyl-N-nitroso-	EHW	C +
P046	Ethanamine, 1,1-dimethyl-2-phenyl-	EHW	C
U067	Ethane, 1,2-dibromo-	EHW	C H +
U076	Ethane, 1,1-dichloro-	EHW	D H
U077	Ethane, 1,2-dichloro-	EHW	D H
U114	1,2-Ethanediylbiscarbamodithioic acid	EHW	B
U131	Ethane, 1,1,1,2,2,2-hexachloro-	EHW	H
U024	Ethane, 1,1'-[methylenebis(oxy)] bis[2-chloro-	EHW	C H
U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxy phenyl)	EHW	D H
U003	Ethanenitrile	EHW	C
U025	Ethane, 1,1'-oxybis[2-chloro-	EHW	C H
U184	Ethane, pentachloro-	EHW	A H
U208	Ethane, 1,1,1,2-tetrachloro-	EHW	H
U209	Ethane, 1,1,2,2-Tetrachloro-	EHW	H
U227	Ethane, 1,1,2-trichloro-	EHW	C H
P084	Ethenamine, N-methyl-N-nitroso	EHW	B +
U043	Ethene, chloro-	EHW	D H +
U042	Ethane, 2-chloroethoxy-	EHW	C H
U078	Ethene, 1,1-dichloro-	EHW	C H +
U079	Ethene, trans-1,2-dichloro-	EHW	D H
U210	Ethene, 1,1,2,2-tetrachloro-	EHW	C H
U006	Ethanoyl chloride	EHW	C H O R
P101	Ethyl cyanide	EHW	B
U038	Ethyl 4,4'-dichlorobenzilate	EHW	D H
U114	Ethylenebis(dithiocarbamic acid), salts and esters	EHW	B
U067	Ethylene dibromide	EHW	C H
U077	Ethylene dichloride	EHW	D H
U115	Ethylene oxide	EHW	C I
P054	Ethylenimine	EHW	B +
U076	Ethylidene dichloride	EHW	D H
P097	Famphur	EHW	A
P056	Fluorine	EHW	B
P057	Fluoroacetamide	EHW	B H
P058	Fluoroacetic acid, sodium salt	EHW	A H
U122	Formaldehyde	EHW	C
P065	Fulminic acid, mercury (II) salt	EHW	R ?
U125	2-Furancarboxaldehyde	EHW	C I
U147	2,5-Furandione	EHW	C
U125	Furfural	EHW	C I
U126	Glycidylaldehyde	EHW	C +
U163	Guanidine, N-nitroso-N-methyl-N'nitro-	EHW	C +
P059	Heptachlor	EHW	X H +
U127	Hexachlorobenzene	EHW	H
U128	Hexachlorobutadiene	EHW	C H
U129	Hexachlorocyclohexane (gamma isomer)	EHW	H +
U130	Hexachlorocyclopentadiene	EHW	X H
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo, endo-1,4,5,8-dimethanophthalene	EHW	X H
P037	1,2,3,4,10,10-Hexachloro-6,7—epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo, exo-1,4,5,8-dimethanonaphthalene	EHW	X H +
U131	Hexachloroethane	EHW	H
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, endo-dimethanonaphthalene	EHW	B H
P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-endo, exodimethanonaphthalene	EHW	B H
P060	Hexachlorohexahydro-endo, endo-dimethanonaphthalene	EHW	B H
U132	Hexachlorophene	EHW	C H
U243	Hexachloropropene	EHW	H
P062	Hexaethyl tetraphosphate	EHW	B
U133	Hydrazine	EHW	B + R
P116	Hydrazinecarbothioamide	EHW	B
U099	Hydrazine, 1,2-dimethyl-	EHW	C + I
U109	Hydrazine, 1,2-diphenyl-	EHW	C
P068	Hydrazine, methyl-	EHW	A I
P063	Hydrocyanic acid	EHW	A
P063	Hydrogen cyanide	EHW	A
P096	Hydrogen phosphide	EHW	B I
U135	Hydrogen sulfide	EHW	B I
U096	Hydroperoxide, 1-methyl-1-phenylethyl-	EHW	C R
U245	Indomethacin	EHW	B H
P064	Isocyanic acid, methyl ester	EHW	I ?
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-	EHW	B
U142	Kepone	EHW	X H
U143	Lasiocarpine	EHW	C +
U144	Lead acetate	EHW	D EP
U129	Lindane	EHW	H +
U147	Maleic anhydride	EHW	C
U149	Malononitrile	EHW	C
U151	Mercury	EHW	EP
P092	Mercury, (acetato-O)phenyl-	EHW	B
P065	Mercury fulminate	EHW	R ?
U152	Methacrylonitrile	EHW	B I
U092	Methanamine, N-methyl-	EHW	C I
P016	Methane, oxybis(chloro)-	EHW	B H +
P112	Methane, tetranitro-	EHW	A R
U029	Methane, bromo-	EHW	H
U045	Methane, chloro-	EHW	H I
U046	Methane, chloromethyoxy-	EHW	D H + I
U068	Methane, dibromo-	EHW	C H +
U080	Methane, dichloro-	EHW	C H
U075	Methane, dichlorodifluoro-	EHW	H
U138	Methane, iodo-	EHW	H +
U211	Methane, tetrachloro-	EHW	C H +
P118	Methanethiol, trichloro-	EHW	H
U153	Methanethiol	EHW	B I
U225	Methane, tribromo	EHW	H
U121	Methane, trichlorofluoro-	EHW	H
U044	Methane, trichloro-	EHW	C H +
P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	EHW	X H +
U036	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-	EHW	X H
P066	Methomyl	EHW	B
P067	2-Methylaziridine	EHW	B + I
P068	Methyl hydrazine	EHW	A I
P064	Methyl isocyanate	EHW	I ?
P069	2-Methyllactonitrile	EHW	A
P071	Methyl parathion	EHW	A
U029	Methyl bromide	EHW	H
U045	Methyl chloride	EHW	H I
U156	Methyl chlorocarbonate	EHW	B H I
U226	Methylchloroform	EHW	C H
U157	3-Methylcholanthrene	EHW	H P
U158	4,4'-Methylenebis(2-chloroaniline)	EHW	H +
U132	2,2'-Methylenebis(3,4,6-trichlorophenol)	EHW	C H
U068	Methylene bromide	EHW	C H +
U080	Methylene chloride	EHW	C H
U122	Methylene oxide	EHW	C
U160	Methyl ethyl ketone peroxide	EHW	B R
U138	Methyl iodide	EHW	H +
U163	N-Methyl-N'-nitro-N-nitrosoguanidine	EHW	C + R
U010	Mitomycin C	EHW	B +
U165	Naphthalene	EHW	B
U047	Naphthalene, 2-chloro-	EHW	D H
U166	1,4-Naphthalenedione	EHW	C
U236	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(1,1'-biphenyl)-4,4' diyl)]-bis (azo)bis(5-amino-4-hydroxy)-,tetrasodium salt	EHW	H +
U166	1,4,Naphthaquinone	EHW	C
U167	1-Naphthylamine	EHW	B +
U168	2-Naphthylamine	EHW	B +
U167	alpha-Naphthylamine	EHW	B +
U168	beta-Naphthylamine	EHW	B +
U026	2-Naphthylamine, N,N'-bis(2-chloro-methyl)-	EHW	H +
P072	alpha-Naphthylthiourea	EHW	B
P073	Nickel carbonyl	EHW	B
P074	Nickel cyanide	EHW	D R ?
P074	Nickel (II) cyanide	EHW	D R ?
P073	Nickel tetracarbonyl	EHW	B
P075	Nicotine and salts	EHW	B
P076	Nitric oxide	EHW	B
P077	p-Nitroaniline	EHW	D ?
U169	Nitrobenzene	EHW	C I
P078	Nitrogen dioxide	EHW	A
P076	Nitrogen (II) oxide	EHW	B

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
P078	Nitrogen (IV) oxide	EHW	A
P081	Nitroglycerine	EHW	R ?
U170	p-Nitrophenol	EHW	C
U171	2-Nitropropane	EHW	C I
U174	N-Nitrosodiethylamine	EHW	C +
P082	N-Nitrosodimethylamine	EHW	B +
U176	N-Nitroso-N-ethylurea	EHW	C +
U177	N-Nitroso-N-methylurea	EHW	C +
U178	N-Nitroso-N-methylurethane	EHW	C +
P084	N-Nitrosomethylvinylamine	EHW	B +
U179	N-Nitrosopiperidine	EHW	C +
U111	N-Nitroso-N-propylamine	EHW	C +
P050	5-Norbornene-2,3,-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite	EHW	X H
P085	Octamethylpyrophosphoramide	EHW	A
P087	Osmium oxide	EHW	B
P087	Osmium tetroxide	EHW	B
P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	EHW	B
U058	2H-1,3,2-Oxazaphosphorine, 2-[bis(2-chloro- ethyl)amino]tetrahydro-, oxide 2-	EHW	C H I +
U115	Oxirane	EWH	C I
U041	Oxirane, 2-(chloromethyl)-	EHW	C H + I
P089	Parathion	EHW	X
U183	Pentachlorobenzene	EHW	H
U184	Pentachloroethane	EHW	A H
U185	Pentachloronitrobenzene	EHW	D H +
See	F027 Pentachlorophenol	EHW	A H
U188	Phenol	EHW	C
P034	Phenol, 2-cyclohexyl-4,6-dinitro-	EHW	C
P048	Phenol, 2,4-dinitro-	EHW	B
P047	Phenol, 2,4-dinitro-6-methyl-, and salts	EHW	B
P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	EHW	B
P009	Phenol, 2,4,6-trinitro-, ammonium salt	EHW	R
U048	Phenol, 2-chloro-	EHW	D H
U039	Phenol, 4-chloro-3-methyl-	EHW	H
U081	Phenol, 2,4-dichloro-	EHW	D H
U082	Phenol, 2,6-dichloro-	EHW	D H
U170	Phenol, 4-nitro-	EHW	C
See	F027 Phenol, pentachloro-	EHW	A H
See	F027 Phenol, 2,3,4,6-tetrachloro-	EHW	C H
See	F027 Phenol, 2,4,5-trichloro-	EHW	A H
See	F027 Phenol, 2,4,6-trichloro-	EHW	A H
P036	Phenyl dichloroarsine	EHW	B H
P092	Phenylmercuric acetate	EHW	B
P093	N-Phenylthoiurea	EHW	A
P094	Phorate	EHW	X
P095	Phosgene	EHW	B H
P096	Phosphine	EHW	B I
P041	Phosphoric acid, diethyl p-nitrophenyl ester	EHW	A
P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	EHW	A
P043	Phosphorofluoridic acid, bis(1-methyl-ethyl)-ester	EHW	B H
P094	Phosphorothiac acid, O,O-diethyl S-(ethylthio)methyl ester	EHW	X
P097	Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)-sulfonyl) pheny]ester	EHW	A
P089	Phosphorothioic acid, O,O-diethyl O-(p-ni-trophenyl)ester	EHW	X
P040	Phosphorothioic acid, O,O-diethyl O-pyra-zinyl ester	EHW	A
U189	Phosphorous sulfide	EHW	B I R
U190	Phthalic anhydride	EHW	C
U191	2-Picoline	EHW	C
P110	Plumbane, tetraethyl-	EHW	A
P098	Potassium cyanide	EHW	A
P099	Potassium silver cyanide	EHW	A
P070	Propanal, 2-methyl-2(methylthio)-O-[(methylamino)carbonyl]oxime	EHW	B
U194	1-Propanamine	EHW	C I
U110	1-Propanamine, N-propyl-	EHW	C I
U066	Propane, 1,2-dibromo-3-chloro-	EHW	C H +
U149	Propanedinitrile	EHW	C
P101	Propanenitrile	EHW	B
P027	Propanenitrile, 3-chloro-	EHW	B H
P079	Propanenitrile, 2-hydroxy-2-methyl-	EHW	A
U171	Propane, 2-nitro-	EHW	C I
U027	Propane, 2,2'oxybis[2-chloro-	EHW	C H O
P081	1,2,3-Propanetriol, trinitrate-	EHW	R ?
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)	EHW	D H
U126	1-Propanol, 2,3-epoxy-	EHW	C +
P017	2-Propanone, 1-bromo-	EHW	C H
P102	Propargyl alcohol	EHW	X
P003	2-Propenal	EHW	X
U007	2-Propenamide	EHW	C
U084	Propene, 1,3-dichloro-	EHW	C H
U243	1-Propene, 1,1,2,3,3,3-hexachloro-	EHW	H
U009	2-Propenenitrile	EHW	C + I
U152	2-Propenenitrile, 2-methyl-	EHW	B I
U008	2-Propenoic acid	EHW	C O I
P005	2-Propen-1-ol	EHW	B I
See	F027 Propionic acid, 2-(2,4,5-trichlorophenoxy)-	EHW	B H
U194	n-Propylamine	EHW	C I
U083	Propylene dichloride	EHW	C H I
P067	1,2-Propylenimine	EHW	B + I
P102	2-Propyn-1-ol	EHW	X
P008	4-Pyridinamine	EHW	B
P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	EHW	B
U196	Pyridine	EHW	C I
U179	Pyridine, hexahydro-N-nitroso-	EHW	C +
U191	Pyridine,2-methyl-	EHW	C
P111	Pyrophosphoric acid, tetraethyl ester	EHW	A
U201	Resorcinol	EHW	C
P103	Selenourea	EHW	B
U015	L-Serine, diazoacetate (ester)	EHW	C +
P104	Silver cyanide	EHW	C
See	F027 Silvex	EHW	B H
P105	Sodium azide	EHW	A
P106	Sodium cyanide	EHW	A
P107	Strontium sulfide	EHW	R
P108	Strychnidin-10-one, and salts	EHW	B
P018	Strychnidin-10-one, 2,3-dimethoxy-	EHW	A
P108	Strychnine and salts	EHW	B
U135	Sulfur hydride	EHW	B I
U103	Sulfuric acid, dimethyl ester	EHW	C O +
P115	Sulfuric acid, thallium (I) salt	EHW	B
U189	Sulfur phosphide	EHW	B I R
See	F027 2,4,5-T	EHW	B H +
See	F027 1,2,4,5-Tetrachlorobenzene	EHW	D H
U208	1,1,1,2-Tetrachloroethane	EHW	H
U209	1,1,2,2-Tetrachloroethane	EHW	H
U210	Tetrachloroethylene	EHW	C H +
U212	2,3,4,6-Tetrachlorophenol	EHW	C H
P109	Tetraethyldithiopyrophosphate	EHW	A
P110	Tetraethyl lead	EHW	A
P111	Tetraethylpyrophosphate	EHW	A
P112	Tetranitromethane	EHW	A R
P062	Tetraphosphoric acid, hexaethyl ester	EHW	B
P113	Thallic oxide	EHW	B
P113	Thallium (III) oxide	EHW	B
P114	Thallium (I) selenide	EHW	C
P115	Thallium (I) sulfate	EHW	B
P045	Thiofanox	EHW	B
P049	Thioimidodicarbonic diamide	EHW	A
U153	Thiomethanol	EHW	B I
P014	Thiophenol	EHW	A
P116	Thiosemicarbazide	EHW	B H +
U219	Thiourea	EHW	C+
P026	Thiourea, (2-chlorophenyl)-	EHW	A H
P072	Thiourea, 1-naphthalenyl-	EHW	B
P093	Thiourea, phenyl-	EHW	A
U220	Toluene	EHW	C I
U223	Toluene diisocyanate	EHW	B R
P123	Toxaphene	EHW	X H
U226	1,1,1-Trichloroethane	EHW	C H
U227	1,1,2-Trichloroethane	EHW	C H
U228	Trichloroethene	EHW	C H +
U228	Trichloroethylene	EHW	C H +
P118	Trichloromethanethiol	EHW	H
U121	Trichloromonofluoromethane	EHW	H
See	F027 2,4,5-Trichlorophenol	EHW	A H
See	F027 2,4,6-Trichlorophenol	EHW	A H
See	F027 2,4,5-Trichlorophenoxyacetic acid	EHW	B H +
U235	Tris(2,3-disbromopropyl) phosphate	EHW	D H
U236	Trypan blue	EHW	H +

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
U237	Uracil, 5[bis(2-chloromethyl)amino]-	EHW	B H +
U237	Uracil mustard	EHW	B H +
P119	Vanadic acid, ammonium salt	EHW	B
P120	Vanadium pentoxide	EHW	B
P120	Vanadium (V) oxide	EHW	B
U043	Vinyl chloride	EHW	D H +
P001	Warfarin	EHW	A
U239	Xylene	EHW	C I
P121	Zinc cyanide	EHW	C
P122	Zinc phosphide	EHW	B R

MODERATELY DANGEROUS CHEMICAL PRODUCTS

U187	Acetamide, N-(4-ethoxyphenyl)-	DW	D +
U005	Acetamide, N-9H-fluoren-2-yl-	DW	?
U112	Acetic acid, ethyl ester	DW	D I
U214	Acetic acid, thallium(I) salt	DW	?
U002	Acetone	DW	D I
U004	Acetophenone	DW	D
U005	2-Acetylaminofluorene	DW	?
U150	Alanine, 3-[p-bis(2-chloroethyl)amino] phenyl-, L-	DW	+
U328	2-Amino-1-methylbenzene	DW	D +
U353	4-Amino-1-methylbenzene	DW	D
U011	Amitrole	DW	D +
U014	Auramine	DW	+
U016	Benz[c]acridine	DW	+
U016	3,4-Benzacridine	DW	+
U014	Benzenamine, 4,4-carbonimidoylbis(N,N-dimethyl-	DW	+
U222	Benzenamine, 2-methyl-, hydrochloride	DW	D +
U181	Benzenamine, 2-methyl-5-nitro	DW	D
U028	1,2-Benzenedicarboxylic acid, [bis(2-ethyl-hexyl)] ester	DW	?
U069	1,2-Benzenedicarboxylic acid, dibutyl ester	DW	D
U088	1,2-Benzenedicarboxylic acid, diethyl ester	DW	?
U102	1,2-Benzenedicarboxylic acid, dimethyl ester	DW	?
U107	1,2-Benzenedicarboxylic acid, di-n-octyl ester	DW	?
U203	Benzene, 1,2-methylenedioxy-4-allyl-	DW	D +
U141	Benzene, 1,2-methylenedioxy-4-propenyl-	DW	D +
U090	Benzene, 1,2-methylenedioxy-4-propyl-	DW	D +
U234	Benzene, 1,3,5-trinitro-	DW	D R
U202	1,2-Benzisothiazolin-3-one, 1, 1-dioxide, and salts	DW	+
U120	Benzo[j,k]fluorene	DW	D
U091	(1,1'-Biphenyl)-4-'-diamine, 3,3'-dimeth-oxy-	DW	D +
U244	Bis(dimethylthiocarbomoyl) disulfide	DW	D
U028	Bis(2-ethythoxyl) phthalate	DW	?
U172	1-Butanamine, N-butyl-N-nitroso-	DW	D +
U031	1-Butanol	DW	D I
U159	2-Butanone	DW	D I
U031	n-Butyl alcohol	DW	D I
U136	Cacodylic acid	DW	D
U238	Carbamic acid, ethyl ester	DW	+
U215	Carbonic acid, dithallium(I) salt	DW	?
U051	Creosote	DW	D
U059	Daunomycin	DW	+
U221	Diaminotoluene	DW	?
U069	Dibutyl phthalate	DW	D
U192	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide	DW	?
U108	1,4-Diethylene dioxide	DW	D +
U086	N,N-Diethylhydrazine	DW	+
U088	Diethyl phthalate	DW	?
U089	Diethylstilbestrol	DW	+
U148	1,2-Dihydro-3-,6-pyridizinedione	DW	D
U090	Dihydrosafrole	DW	D +
U091	3,3'-Dimethoxybenzidine	DW	D +
U098	1,1-Dimethylhydrazine	DW	+ I
U101	2,4-Dimethylphenol	DW	D
U102	Dimethyl phthalate	DW	?
U107	Di-n-octyl phthalate	DW	?
U108	1,4-Dioxane	DW	D +
U117	Ethane, 1,1'-oxybis-	DW	D I
U218	Ethanethioamide	DW	+
U173	Ethanol, 2,2-(nitrosoimino)bis-	DW	+
U004	Ethanone, 1-phenyl-	DW	D
U112	Ethyl acetate	DW	D I
U113	Ethyl acrylate	DW	D I
U238	Ethyl carbamate (urethan)	DW	+
U116	Ethylene thiourea	DW	D +
U117	Ethyl ether	DW	DI
U118	Ethyl methacrylate	DW	I
U119	Ethyl methanesulfonate	DW	+
U139	Ferric dextran	DW	+
U120	Fluoranthene	DW	D
U123	Formic Acid	DW	D O
U124	Furan	DW	I
U213	Furan, tetrahydro-	DW	I
U124	Furfuran	DW	I
U206	D-Glucopyranose, 2-deoxy-2(3-methyl-3-nitrosoureido)-	DW	+
U086	Hydraxine, 1,2-diethyl-	DW	+
U098	Hydrazine, 1,1-dimethyl-	DW	+ I
U134	Hydrofluoric acid	DW	D O
U134	Hydrogen fluoride	DW	D O
U136	Hydroxydimethylarsine oxide	DW	D
U116	2-Imidazolidinethione	DW	D +
U137	Indeno[1,2,3-cd]pyrene	DW	+
U139	Iron dextran	DW	+
U140	Isobutyl alcohol	DW	D I
U141	Isosafrole	DW	D +
U145	Lead phosphate	DW	+
U146	Lead subacetate	DW	+
U148	Maleic hydrazide	DW	D
U150	Melphalan	DW	+
U119	Methanesulfonic acid, ethyl ester	DW	+
U123	Methanoic acid	DW	D O
U154	Methanol	DW	D I
U155	Methapyrilene	DW	D
U154	Methyl alcohol	DW	D I
U186	1-Methylbutadiene	DW	D I
U159	Methyl ethyl ketone	DW	D I
U161	Methyl isobutyl ketone	DW	D I
U162	Methyl methacrylate	DW	D I
U161	4-Methyl-2-pentanone	DW	+
U164	Methylthiouracil	DW	+
U059	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	DW	+
U172	N-Nitrosodi-n-butylamine	DW	D +
U173	N-Nitrosodiethanolamine	DW	+
U180	N-Nitrosopyrrolidine	DW	D +
U181	5-Nitro-o-toluidine	DW	D
U193	1,2-Oxathiolane, 2,2-dioxide	DW	+
U182	Paraldehyde	DW	D I
U186	1,3-Pentadiene	DW	D I
U187	Phenacetin	DW	D+
U101	Phenol, 2,4-dimethyl-	DW	D
U137	1,10-(1,2-phenylene)pyrene	DW	+
U145	Phosphoric acid, Lead salt	DW	+
U087	Phosphorodithioic acid, O,O-diethyl-,S-methyl ester	DW	?
U192	Pronamide	DW	?
U193	1,3-Propane sultone	DW	+
U140	1-Propanol, 2-methyl-	DW	D I
U002	2-Propanone	DW	D I
U113	2-Propenoic acid, ethyl ester	DW	D I
U118	2-Propenoic acid, 2-methyl-, ethyl ester	DW	I
U162	2-Propenoic acid, 2-methyl-, methyl ester	DW	D I
U155	Pyridine, 2-[(2dimethylamino)-2-thenylamino]-	DW	D
U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	DW	+
U180	Pyrrole, tetrahydro-N-nitroso-	DW	D +
U200	Reserpine	DW	?
U202	Saccharin and salts	DW	+
U203	Safrole	DW	D +
U204	Seleniousacid	DW	O
U204	Selenium dioxide	DW	O
U205	Selenium disulfide	DW	R
U089	4,4'-Stilbenediol, alpha,alpha'-diethyl-	DW	+
U206	Streptozotocin	DW	+

Dangerous Waste No.	Substance	WDOE Hazard Designation	Reason for Designation*
U205	Sulfur selenide	DW	R
U213	Tetrahydrofuran	DW	I
U214	Thallium(1) acetate	DW	?
U215	Thallium(1) carbonate	DW	?
U216	Thallium(1) chloride	DW	?
U217	Thallium(1) nitrate	DW	?
U218	Thioacetamide	DW	+
U244	Thiran	DW	D
U221	Toluenediamine	DW	?
U328	o-Toluidine	DW	D +
U353	p-Toluidine	DW	D
U222	O-Toluidine hydrochloride	DW	D +
U011	1H-1,2,4-Triazol-3-amine	DW	D +
U234	sym-Trinitrobenzene	DW	D R
U182	1,3,5-Trioxane, 2,4,5-trimethyl-	DW	D I
U200	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-,methyl ester	DW	?

* EHW = Extremely Hazardous Waste
DW = Dangerous Waste
X = Toxic, Category X
A = Toxic, Category A
B = Toxic, Category B
C = Toxic, Category C
D = Toxic, Category D
H = Persistent, Halogenated Hydrocarbon
O = Corrosive
P = Persistent, Polycyclic Aromatic Hydrocarbon
+ = IARC Animal or Human, Positive or Suspected Carcinogen
I = Ignitable
R = Reactive
EP = Extraction Procedure Toxicity

[Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-9903, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-9903, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-9903, filed 2/10/82.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

WAC 173-303-9904 Dangerous waste sources list.

DANGEROUS WASTE SOURCES LIST

Dangerous Waste No.	Sources
	Nonspecific Sources
Generic:	
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluoracarbons; and sludges from the recovery of these solvents in degreasing operations. (See footnote 1, below.)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, and trichlorofluoromethane; and the still bottoms from the recovery of these solvents. (See footnote 1, below.)
F003	The following spent nonhalogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; and the still bottoms from the recovery of these solvents.
F004	The following spent nonhalogenated solvents: Cresols and cresylic acid, nitrobenzene; and the still bottoms from the recovery of these solvents.
F005	The following spent nonhalogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine; and the still bottoms from the recovery of these solvents.
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum.
F007	Spent cyanide plating bath solutions from electroplating operations.
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process.
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to

Dangerous Waste No.	Sources
	produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.) (See footnote 2, below.)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives. (See footnote 2, below.)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions. (See footnote 2, below.)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (See footnote 2, below.) (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions. (See footnote 2, below.)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (See footnote 2, below.) (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with nonspecific sources wastes F020, F021, F022, F023, F026 and F027.
F024	Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (See footnote 1, below.) (This listing does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, spent catalysts, and wastes listed under specific sources, below.)

Specific Sources

Wood Preservation:

K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol. (See footnote 1, below.)

Inorganic Pigments:

K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).
K007	Wastewater treatment sludge from the production of iron blue pigments.
K008	Oven residue from the production of chrome oxide green pigments.

Organic Chemicals:

K009	Distillation bottoms from the production of acetaldehyde from ethylene.
K010	Distillation side cuts from the production of acetaldehyde from ethylene.
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.
K015	Still bottoms from the distillation of benzyl chloride. (See footnote 1, below.)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride. (See footnote 1, below.)

Dangerous Waste No.	Sources
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin. (See footnote 1, below.)
K018	Heavy ends from the fractionation column in ethyl chloride production. (See footnote 1, below.)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production. (See footnote 1, below.)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production. (See footnote 1, below.)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production. (See footnote 1, below.)
K022	Distillation bottom tars from the production of phenol/acetone from cumene.
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.
K026	Stripping still tails from the production of methyl ethyl pyridines.
K027	Centrifuge and distillation residues from toluene diisocyanate production.
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane. (See footnote 1, below.)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane. (See footnote 1, below.)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane. (See footnote 1, below.)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane. (See footnote 1, below.)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene. (See footnote 1, below.)
K083	Distillation bottoms from aniline production.
K103	Process residues from aniline extraction from the production of aniline.
K104	Combined wastewater streams generated from nitrobenzene/aniline production.
K085	Distillation of fractionation column bottoms from the production of chlorobenzenes. (See footnote 1, below.)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes. (See footnote 1, below.)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine. (See footnote 1, below.)
Explosives:	
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.
K045	Spent carbon from the treatment of wastewater containing explosives.
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.
K047	Pink/red water from TNT operations.
Inorganic Chemicals:	
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production. (See footnote 1, below.)

Dangerous Waste No.	Sources
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.
Petroleum Refining:	
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.
K049	Slop oil emulsion solids from the petroleum refining industry.
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.
K051	API separator sludge from the petroleum refining industry.
K052	Tank bottoms (leaded) from the petroleum refining industry.
Iron and Steel:	
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.
K062	Spent pickle liquor from steel finishing operations.
Pesticides:	
K031	Byproduct salts generated in the production of MSMA and cacodylic acid.
K032	Wastewater treatment sludge from the production of chlordane. (See footnote 3, below.)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. (See footnote 3, below.)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. (See footnote 3, below.)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane. (See footnote 3, below.)
K035	Wastewater treatment sludges generated in the production of creosote.
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.
K037	Wastewater treatment sludges from the production of disulfoton.
K038	Wastewater from the washing and stripping of phorate production. (See footnote 3, below.)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. (See footnote 3, below.)
K040	Wastewater treatment sludge from the production of phorate. (See footnote 3, below.)
K041	Wastewater treatment sludge from the production of toxaphene. (See footnote 3, below.)
K098	Untreated process wastewater from the production of toxaphene. (See footnote 3, below.)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. (See footnote 1, below.)
K043	2,6-Dichlorophenol waste from the production of 2,4-D. (See footnote 1, below.)
K099	Untreated wastewater from the production of 2,4-D. (See footnote 1, below.)
Secondary Lead:	
K069	Emission control dust/sludge from secondary lead smelting.
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
Veterinary Pharmaceuticals:	
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.
Ink Formulation:	
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.
Coking:	
K060	Ammonia still-lime sludge from coking operations.
K087	Decanter tank tar sludge from coking operations.

1 These wastes contain or may contain halogenated hydrocarbons. Although WAC 173-303-082 states that these wastes are DW, WAC 173-303-070(5), special knowledge, requires generators who know that their waste contains greater than one percent of these

Dangerous Waste No.	Sources

listed halogenated hydrocarbons to designate their waste EHW.

2 For wastes listed with the dangerous waste numbers F020, F021, F022, F023, F026, or F027 the quantity exclusion limit is 2.2 lbs. (1 kg) per month or per batch.

3 These wastes contain or may contain X Category toxic constituents. Although WAC 173-303-082 states that these wastes are DW, WAC 173-303-070(5), special knowledge, requires generators who know that their waste contains greater than 0.1 percent of these listed toxic constituents to designate their waste EHW.

State Sources

W001 The following wastes generated from the salvaging, rebuilding, or discarding of transformers or capacitors which contain polychlorinated biphenyls (PCB): Cooling and insulating fluids; cores, including core papers, from unrinsed transformers and capacitors; transformers and capacitors which will no longer be used for their intended use, except for those transformers or capacitors which have been rinsed; and, rinsate from the rinsing of transformers and capacitors. For the purposes of this listing, the rinsing of PCB containing items shall be conducted as follows: First, the item is drained of all free flowing liquid; second, the item is filled with solvent and allowed to stand for at least eighteen hours; last, the item is drained thoroughly and the solvent is collected. Solvents may include kerosene, xylene, toluene and other solvents in which PCB are readily soluble. (Note—Certain PCB wastes are excluded from this listing under WAC 173-303-071 (3)(k). The generator should check that section to determine if his PCB waste is excluded from the requirements of chapter 173-303 WAC.)

[Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-9904, filed 6/3/86; 85-09-042 (Order DE-85-02), § 173-303-9904, filed 4/15/85; 84-09-088 (Order DE 83-36), § 173-303-9904, filed 4/18/84. Statutory Authority: Chapter 70-.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-9904, filed 2/10/82.]

WAC 173-303-9905 Dangerous waste constituents list.

Acetonitrile [Ethanenitrile]
Acetophenone (Ethanone, 1-phenyl)
3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts (Warfarin)
2-Acetylaminofluorene (Acetemide,N-9H-fluoren-2-yl)-)
Acetyl chloride (Ethanoyl chloride)
1-Acetyl-2-thiourea (Acetamide, N-(aminothioxomethyl)-)
Acrolein (2-Propenal)
Acrylamide (2-Propenamide)
Acrylonitrile (2-Propenenitrile)
Aflatoxins
Aldrin (1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a,8b-hexahydro-endo,exo-1,4:5,8-Dimethanonaphthalene)
Allyl alcohol (2-Propen-1-ol)
Aluminum phosphide
4-Aminobiphenyl ([1,1'-Biphenyl]-4-amine)
6-Amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methyl-carbamate azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, (ester) (Mitomycin C)
(Azirino[2'3':3,4]pyrrolo(1,2-a)indole-4,7-dione, 6-amino-8[((amino-carbonyl)oxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8amethoxy-5-methy-)
5-(Aminomethyl)-3-isoxazolol (3(2H)-Isoxazolone, 5-(aminomethyl)-)-4 Aminopyridine (4-Pyridinamine)[1]
Amitrole (1H-1,2,4-Triazol-3-amine)
Aniline (Benzenamine)
Antimony and compounds, N.O.S.*
Aramite (Sulfurous acid, 2-chloroethyl- 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester)
Arsenic and compounds, N.O.S.*
Arsenic acid (Orthoarsenic acid)
Arsenic pentoxide (Arsenic (V) oxide)
Arsenic trioxide (Arsenic (III) oxide)
Auramine (Benzenamine, 4,4-carbonimidoylbis[N,N-Dimethyl-monohydrochloride)
Azaserine (L-Serine, diazoacetate (ester))
Barium and compounds, N.O.S.*
Barium cyanide
Benz[c]acridine (3,4-Benzacridine)
Benz[a]anthracene (1,2-Benzanthracene)
Benzene (Cyclohexatriene)
Benzenearsonic acid (Arsonic acid, phenyl-)
Benzene, 2-amino-1-methyl (o-Toluidine)
Benzene, 4-amino-1-methyl (p-Toluidine)
Benzene, dichloromethyl- (Benzal chloride)
Benzenethoil (Thiophenol)
Benzidine ([1,1'-Biphenyl]-4,4'diamine)
Benzo[b]fluoranthene (2,3-Benzofluoranthene)
Benzo[j]fluoranthene (7,8-Benzofluoranthene)
Benzo[a]pyrene (3,4-Benzopyrene)
p Benzoquinone (1,4-Cyclohexadienedione)
Benzotrichloride (Benzene, trichloromethyl-)
Benzyl chloride (Benzene, (chloromethyl)-)
Beryllium and compounds, N.O.S.*
Bis(2-chloroethoxy)methane (Ethane, 1,1'-

[methylenebis(oxy)]bis[2-chloro-])
Bis(2-chloroethyl) ether (Ethane, 1,1'-oxybis[2-chloro-])
N,N-Bis(2-chloroethyl)-2-naphthylamine (Chlornaphazine)
Bis(2-chloroisopropyl) ether (Propane, 2,2'-oxybis[2-chloro-])
Bis(chloromethyl) ether (Methane, oxybis[chloro-])
Bis(2-ethylhexyl) phthalate (1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester)
Bromoacetone (2-Propanone, 1-bromo-)
Bromomethane (Methyl bromide)
4-Bromophenyl phenyl ether (Benzene, 1-bromo-4-phenoxy-)
Brucine (Strychnidin-10-one, 2,3-dimethoxy-)
2-Butanone peroxide (Methyl ethyl ketone, peroxide)
Butyl benzyl phthalate (1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester)
2-sec-Butyl-4,6-dinitrophenol (DNBP) (Phenol, 2,4-dinitro-6-(1-methylpropyl)-)
Cadmium and compounds, N.O.S.*
Calcium chromate (Chromic acid, calcium salt)
Calcium cyanide
Carbon disulfide (Carbon bisulfide)
Carbon oxyfluoride (Carbonyl fluoride)
Chloral (Acetaldehyde, trichloro-)
Chlorambucil (Butanoic acid, 4-[bis(2-chloroethyl)amino]benzene-)
Chlordane (alpha and gamma isomers) (4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3,4,7,7a-tetrahydro-) (alpha and gamma isomers)
Chlorinated benzenes, N.O.S.*
Chlorinated ethane, N.O.S.*
Chlorinated fluorocarbons, N.O.S.*
Chlorinated naphthalene, N.O.S.*
Chlorinated phenol, N.O.S.*
Chloroacetaldehyde (Acetaldehyde, chloro-)
Chloroalkyl ethers, N.O.S.*
P-Chloroaniline (Benzenamine, 4-chloro-)
Chlorobenzene (Benzene, chloro-)
Chlorobenzilate (Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-,ethyl ester)
2-Chloro-1,3-butadiene
p-Chloro-m-cresol (Phenol, 4-Chloro-3-methyl)
1-Chloro-2,3-epoxypropane (Oxirane, 2-(chloromethyl)-)
2-Chloroethyl vinyl ether (Ethene, (2-chloroethoxy)-)
Chloroform (Methane, trichloro-)
Chloromethane (Methyl chloride)
Chloromethyl methyl ether (Methane, chloromethoxy-)
2-Chloronaphthalene (Naphthalene, beta-chloro-)
2-Chlorophenol (Phenol, o-chloro-)
1-(o-Chlorophenyl)thiourea (Thiourea, (2-chlorophenyl)-)
3-Chloropropene
3-Chloropropionitrile (Propanenitrile, 3-chloro-)
Chromium and compounds, N.O.S.*
Chrysene (1,2-Benzphenanthrene)
Citrus red No. 2 (2-Naphthol, 1-[(2,5-dimethoxyphenyl)azo]-)
Coal tars
Copper cyanide
Creosote (Creosote, wood)
Cresols (Cresylic acid) (Phenol, methyl-)
Crotonaldehyde (2-Butenal)
Cyanides (soluble salts and complexes), N.O.S.*
Cyanogen (Ethanedinitrile)
Cyanogen bromide (Bromine cyanide)
Cyanogen chloride (Chlorine cyanide)
Cycasin (beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl-)
2-Cyclohexyl-4,6-dinitrophenol (Phenol, 2-cyclohexyl-4,6-dinitro-)
Cyclophosphamide (2H-1,3,2,-Oxazaphosphorine, [bis(2-chloroethyl)amino]-tetrahydro-, 2-oxide)
Daunomycin (5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-)
DDD (Dichlorodiphenyldichloroethane) (Ethane, 1,1-dichloro-2,2-bis(p chlorophenyl)-)
DDE (Ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
DDT (Dichlorodiphenyltrichloroethane) (Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)-)
Diallate (S-(2,3-dichloroallyl) diisopropylthiocarbamate)
Dibenz[a,h]acridine (1,2,5,6-Dibenzacridine)
Dibenz[a,j]acridine (1,2,7,8-Dibenzacridine)
Dibenz[a,h]anthracene (1,2,5,6-Dibenzanthracene)
7H-Dibenzo[c,g]carbazole (3,4,5,6-Dibenzcarbazole)
Dibenzo[a,e]pyrene (1,2,4,5-Dibenzpyrene)
Dibenzo[a,h]pyrene (1,2,5,6-Dibenzpyrene)
Dibenzo[a,i]pyrene (1,2,7,8-Dibenzpyrene)
1,2-Dibromo-3-chloropropane (Propane, 1,2-dibromo-3-chloro-)
1,2-Dibromoethane (Ethylene dibromide)
Dibromomethane (Methylene bromide)
Di-n-butyl phthalate (1,2-Benzenedicarboxylic acid, dibutyl ester)
o-Dichlorobenzene (Benzene, 1,2-dichloro-)
m-Dichlorobenzene (Benzene, 1,3-dichloro-)
p-Dichlorobenzene (Benzene, 1,4-dichloro-)
Dichlorobenzene, N.O.S.* (Benzene, dichloro-, N.O.S.*)

3,3'-Dichlorobenzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-)
1,4-Dichloro-2-butene (2-Butene, 1,4-Butene, 1,4-dichloro-)
Dichlorodifluoromethane (Methane, dichlorodifluoro-)
1,1-Dichloroethane (Ethylidene dichloride)
1,2-Dichloroethane (Ethylene dichloride)
trans-1,2-Dichloroethene (1,2-Dichloroethylene)
Dichloroethylene, N.O.S.* (Ethene, dichloro-, N.O.S.*)
1,1-Dichloroethylene (Ethene, 1,1-dichloro-)
Dichloromethane (Methylene chloride)
2,4-Dichlorophenol (Phenol, 2,4-dichloro-)
2,6-Dichlorophenol (Phenol, 2,6-dichloro)
2,4-Dichlorophenoxyacetic acid (2,4-D), salts and esters (Acetic acid, 2,4-dichlorophenoxy-, salts and esters)
Dichlorophenylarsine (Phenyl dichloroarsine)
Dichloropropane, N.O.S.* (Propane, dichloro-, N.O.S.*)
1,2-Dichloropropane (Propylene dichloride)
Dichloropropanol, N.O.S.* (Propanol, dichloro-, N.O.S.*)
Dichloropropene, N.O.S.* (Propene, dichloro-, N.O.S.*)
1,3-Dichloropropene, (1-Propene, 1,3-dichloro-)
Dieldrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octa-hydro-endo, exo-1,4:5,8-Dimethanonaphthalene)
1,2:3,4-Diepoxybutane (2,2'-Bioxirane)
Diethylarsine (Arsine, diethyl-)
N,N-Diethylhydrazine (Hydrazine, 1,2-diethyl)
O,O-Diethyl S-methyl ester of phosphorodithioic acid (Phosphorodithioic acid, O,O-diethyl S-methyl ester
O,O-Diethylphosphoric acid, O-p-nitrophenyl ester (Phosphoric acid, diethyl p-nitrophenyl ester)
Diethyl phthalate (1,2-Benzenedicarboxylic acid, diethyl ester)
O,O-Diethyl O-2-pyraxinyl phosphorothioate (Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
Diethylstilbesterol (4,4'-Stilbenediol, alpha,alpha-diethyl, bis(dihydrogen phosphate, (E)-)
Dihydrosafrole (Benzene, 1,2-methylenedioxy-4-propyl-)
3,4-Dihydroxy-alpha-(methylamino)methyl benzyl alcohol (1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-)
Diisopropylfluorophosphate (DFP) (Phosphorofluoridic acid, bis(1-methylethyl) ester)
Dimethoate (Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
3,3'-Dimethoxybenzidine ([1,1'-Biphenyl]-4,4'diamine, 3-3'dimethoxy-)
p-Dimethylaminoazobenzene (Benzenamine, N,N-dimethyl-4-(phenylazo)-)
7,12-Dimethylbenz[a]anthracene (1,2-Benzanthracene, 7,12-dimethyl-)
3,3'Dimethylbenzidine ([1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-)
Dimethylcarbamoyl chloride (Carbamoyl chloride, dimethyl-)
1,1-Dimethylhydrazine (Hydrazine, 1,1-dimethyl-)
1,2-Dimethylhydrazine (Hydrazine, 1,2-dimethyl-)
3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino) carbonyl]oxime (Thiofanox)
alpha,alpha-Dimethylphenethylamine (Ethanamine, 1,1-dimethyl-2-phenyl)
2,4-Dimethylphenol (Phenol, 2,4-dimethyl-)
Dimethyl phthalate (1,2-Benzenedicarboxylic, acid, dimethyl ester)
Dimethyl sulfate (Sulfuric acid, dimethyl ester)
Dinitrobenzene, N.O.S.* (Benzene, dinitro-, N.O.S.*
4,6-Dinitro-o-cresol and salts (Phenol, 2,4-dinitro-6-methyl-, and salts)
2,4-Dinitrophenol (Phenol, 2,4-dinitro-)
2,4-Dinitrotoluene (Benezene, 1-methyl-2,4-dinitro-)
2,6-Dinitrotoluene (Benzene,1-methyl -2,6-dinitro-)
Di-n-octyl phthalate (1,2-Benzenedicarbozylic acid, dioctyl ester)
1,4-Dioxane (1,4-Diethylene oxide)
Diphenylamine (Benzenamine, N-Phenyl-)
1,2-Diphenylhydrazine (Hydrazine, 1,2-diphenyl-)
Di-n-propylmitrosamine (N-Nitroso-di-n-propylamine)
Disulfoton (O,O-diethyl S-[2-(ethylthio)ethyl] phosphorodithioate)
2,4-Dithiobiuret (Thioimidodicarbonic diaminde)
Endosulfan (5-Norbornene, 2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite)
Endrin and metabolites (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,endo-1,4:5,8-dimethanonaphthalene, and metabolites)
Ethyl carbamate (Urethan) (Carbamic acid, ethyl ester)
Ethyl cyanide (propanenitrile)
Ethylenebisdithiocarbamic acid, salts and esters (1,2-Ethanediylbiscarbamodithioic acid, salts and esters.
Ethyleneimine (Aziridine)
Ethylene oxide (Oxirane)
Ethylenethiourea (2-Imidazolidinethione)
Ethylmethacrylate (2-Propenoic acid, 2-methyl-, ethyl ester)

Ethyl methanesulfonate (Methanesulfonic acid, ethyl ester)
Fluoranthene (Benzo[j,k]fluorene)
Fluorine
2-Fluoroacetamide (Acetamide, 2-fluoro-)
Fluoroacetic acid, sodium salt (Acetic acid, fluoro-, sodium salt)
Formaldehyde (Methylene, oxide)
Formic acid (Methanoic acid)
Glycidylaldehyde (1-Propanol-2-3-epoxy)
Halomethane, N.O.S.*
Heptachlor (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-)
Heptachlor epoxide (alpha, beta, and gamma isomers) (4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7-tetrahydro-, alpha, beta and gamma isomers)
Hexachlorobenzene (Benzene, hexachloro-)
Hexachlorobutadiene (1,3-Butadiene, 1,1,2,3,4,4-hexachloro-)
Hexachlorocyclohexane (all isomers) (Lindane and isomers)
Hexachlorocylopentadiene (1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-)
Hexachlorodibenzo-p-dioxins
Hexachlorodibenzofurans
Hexachloroethane (Ethane, 1,1,1,2,2,2-hexachloro-)
1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo,endo-dimethanonphthalene (Hexachlorohexahydro-endo,endo-dimethanonaphthalene)
Hexachlorophene (2,2'-Methylenebis(3,4,6-trichlorophenol))
Hexachloropropene (1-Propene, 1,1,2,3,3,3-hexachloro-)
Hexaethyl tetraphosphate (Tetraphosphoric acid, hexaethyl ester)
Hydrazine (Diamine)
Hydrocyanic acid (Hydrogen cyanide)
Hydrofluoric acid (Hydrogen fluoride)
Hydrogen sulfide (Sulfur hydride)
Hydroxydimethylarsine oxide (Cacodylic acid)
Indeno(1,2,3-cd)pyrene (1,10-(1,2-phenylene)pyrene)
Iodomethane (Methyl iodide)
Iron Dextran (Ferric dextran)
Isocyanic acid, methyl ester (Methyl isocyanate)
Isobutyl alcohol (1-Propanol, 2-methyl-)
Isosafrole (Benzene, 1,2-methylenedioxy-4-allyl-)
Kepone (Decachlorooctahydro-1,3,4-Methano-2H-cyclobuta[cd]pentalen-2-one)
Lasiocarpine (2-Butenoic acid, 2-methyl-,7-[(2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester)
Lead and compounds, N.O.S.*
Lead acetate (Acetic acid, lead salt)
Lead phosphate (Phosphoric acid, lead salt)
Lead subacetate (Lead, bis(acetato-O)tetrahydroxytri-)
Maleic anhydride (2,5-Furandione)
Maleic hydrazide (1,2-Dihydro-3,6-pyridazinedione)
Malononitrile (Propanedinitrile)
Melphalan (Alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-,L-)
Mercury Fulminate (Fulminic acid, mercury salt)
Mercury and compounds, N.O.S.*
Methacrylonitrile (2-Propenenitrile, 2-methyl-)
Methanethiol (Thiomethanol)
Methapyrilene (Pyridine, 2-[(2-dimethylamino)ethyl]-2-thenylamino-)
Metholonyl (Acetimidic acid, N-[(methylcarbamoyl)oxy]thio-,methyl ester
Methoxychior (Ethane, 1,1,1-trichloro-2,2'-bis(p-methoxyphenyl)-)
2-Methylaziridine (1,2-Propylenimine)
3-Methylcholanthrene (Benz[j]aceanthryiene, 1,2-dihydro-3-methyl-)
Methyl chlorocarbonate (Carbonochloridic acid, methyl ester)
4,4'-Methylenebis(2-chloroaniline) (Benzenamine, 4,4'-methylenebis-(2-chloro-)
Methyl ethyl ketone (MEK) (2-Butanone)
Methyl hydrazine (Hydrazine, methyl-)
2-Methyllactonitrile (Propanenitrile, 2-hydroxy-2-methyl-)
Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)
Methyl methanesulfonate (Methanesulfonic acid, methyl ester)
2-Methyl-2-(methylthio)propionaldehyde-o-(methylcarbonyl) oxime (Propanal,2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime)
N-Methyl-N'-nitro-N-nitrosoguanidine (Guanidine, N-nitros-N-methyl-N'nitro-)
Methyl parathion (O,O-dimethyl O-(4-nitrophenyl) phosphorothioate)
Methylthiouracil (4-1H-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-)
Mustard gas (Sulfide, bis(2-chloroethyl)-)
Naphthalene
1,4-Naphthoquinone (1,4-Naphthalenedione)
1-Naphthylamine (alpha-Naphthylamine)
2-Naphthylamine (beta-Naphthylamine)
1-Naphthyl-2-thiourea (Thiourea, 1-naphthalenyl-)
Nickel and compounds, N.O.S.*
Nickel carbonyl (Nickel tetracarbonyl)
Nickel cyanide (nickel (II) cyanide)
Nicotine and salts, Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts)
Nitric oxide (Nitrogen (II) oxide)

p-Nitroaniline (Benzenamine, 4-nitro-)
Nitrobenzine (Benzene, nitro-)
Nitrogen dioxide (Nitrogen (IV) oxide)
Nitrogen mustard and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, and hydrochloride salt)
Nitrogen mustard N-Oxide and hydrochloride salt (Ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, and hydrochloride salt)
Nitroglycerine (1,2,3-Propanetriol, trinitrate)
4-Nitrophenol (Phenol, 4-nitro-)
4-Nitroquinoline-1-oxide (Quinoline, 4-nitro-1-oxide-)
Nitrosamine, N.O.S.*
N-Nitrosodi-n-butylamine (1-Butanamine, N-butyl-N-nitroso-)
N-Nitrosodiethanolamine (Ethanol, 2,2'-(nitrosoimino)bis-)
N-Nitrosodiethylamine (Ethanamine, N-Ethyl-N-nitroso-)
N-Nitrosodimethylamine (Dimethylnitrosamine)
N-Nitroso-N-ethylurea (Carbamide, N-ethyl-N-nitroso-)
N-Nitrosomethylethylamine (Ethanamine, N-methyl-N-nitroso-)
N-Nitroso-N-methylurea (Carbamide, N-methyl-N-nitroso-)
N-Nitroso-N-methylurethane (Carbamic acid, methylnitroso-, ethyl ester)
N-Nitrosomethylvinylamine (Ethenamine, N-methyl-N-nitroso-)
N-Nitrosomorpholine (Morpholine, N-nitroso-)
N-Nitrosonornicotine (Nornicotine, N-nitroso-)
N-Nitrosopiperidine (Pyridine, hexahydro-, N-nitroso-)
Nitrosopyrrolidine (pyrrole, tetrahydro-, N-nitroso-)
N-Nitrososacrosine (Sarcosine, N-nitroso-)
5-Nitro-o-toluidine (Benzenamine, 2-methyl-5-nitro-)
Octamethylpyrophosphoramide (Diphosphoraminde, octamethyl-)
Osmium tetroxide (Osmium (VIII) oxide)
7-Ocabicyclo[2.2.1]heptane-2,3-dicarbonxylic acid (Endothal)
Paraldehyde (1,3,5-Trioxane, 2,4,6-trinethyl-)
Parathion (Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester
Pentachlorobenzene (Benzene, pentachloro-)
Pentachlorodibenzo-p-dioxins
Pentachlorodibenzofurans
Pentachloroethane (Ethane, pentachloro-)
Pentachloronitrobenzene (PCNB) (Benzene, pentachloronitro-)
Pentachlorophenol (Phenol, pentachloro-)
Phenacetin (Acetamide, N-(4-ethoxyphenyl)-)
Phenol (Benzene, hydroxy-)
Phenylenediamine (Benzenediamine)
Phenylmercury acetate (Mercury, acetatophenyl-)
N-Phenylthiourea (Thiourea, phenyl-)
Phosgene (Carbonyl chloride)
Phosphine (Hydrogen phosphide)
Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester (Phorate)
Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)sulfonyl)phenyl] ester (Famphur)
Phthalic acid esters, N.O.S.* (Benzene, 1,2-dicarboxylic acid, esters, N.O.S.*
Phthalic anhydride (1,2-Benzenedicarboxylic acid anhydride)
2-Picoline (Pyridine, 2-methyl-)
Polychlorinated biphenyl, N.O.S.*
Potassium cyanide
Potassium silver cyanide (Argentate(1-), dicyano-, potassium)
Pronamide (3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide)
1,3-Propanesultone (1,2-Oxathiolane, 2,2-dioxide)
n-Propylamine (1-Propane)
Propylthiouracil (Undecamethylenediamine, N,N'-bis(2-chlorobenzyl)-, dihydrochloride)
2-Propyn-1-ol (Propargyl alcohol)
Pyridine
Reserpine (Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenxoyl)oxy]-, methyl ester)
Resorcinol (1,3-Benzenediol)
Saccharin and salts (1,2-Benzoisothiazolin-3-one, 1,1-dioxide, and salts)
Safrol (Benzene, 1,2-methylenedioxy-4-allyl-)
Selenious acid (Selenium dioxide)
Selenium and compounds, N.O.S.*
Selenium sulfide (Sulfur selenide)
Selenourea (Carbamimidoselenoic acid)
Silver and compounds, N.O.S.*
Silver cyanide
Sodium cyanide
Streptozotocin (D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-)
Strontium sulfide
Strychnine and salts (Strychnidin-10-one, and salts)
1,2,4,5-Tetrachlorobenzene (Benzene, 1,2,4,5-tetrachloro-)
Tetrachlorodibenzo-p-dioxins
Tetrachlorodibenzofurans
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Dibenzo-p-dioxin, 2,3,7,8-tetrachloro-)
Tetrachloroethane, N.O.S.* (Ethane, tetrachloro-, N.O.S.*)
1,1,1,2-Tetrachlorethane (Ethane, 1,1,1,2-tetrachloro-)
1,1,2,2-Tetrachlorethane (Ethane, 1,1,2,2-tetrachloro-)
Tetrachlorethylene (Ethane, 1,1,2,2-tetrachloro-)[1]
Tetrachloromethane (Carbon tetrachloride)

2,3,4,6-Tetrachlorophenol (Phenol,2,3,4,6-tetrachloro-)
Tetraethyldithiopyrophosphate (Dithiopyrophosphoric acid, tetraethyl-ester)
Tetraethyl lead (Plumbane, tetraethyl-)
Tetraethylpyrophosphate (Pyrophosphoric acide, tetraethyl ester)
Tetranitromethane (Methane, tetranitro-)
Thallium and compounds, N.O.S.*
Thallic oxide (Thallium (III) oxide)
Thallium (1) acetate (Acetic acid, thallium (I) salt)
Thallium (I) carbonate (Carbonic acid, dithallium (I) salt)
Thallium (I) chloride
Thallium (I) nitrate (Nitric acid, thallium (I) salt)
Thallium selenite
Thallium (I) sulfate (Sulfuric acid, thallium (I) salt)
Thioacetamide (Ethanethioamide)
Thiosemicarbazide (Hydrazinecarbothioamide)
Thiourea (Carbamide thio-)
Thiuram (Bis(dimethylthioucarbamoyl) disulfide)
Toluene (Benzene, methyl-)
Toluenediamine (Diaminotoluene)
2,4-Toluenediamine
2,6-Toluenediamine
3,4-Toluenediamine
o-Toluidine hydrochloride (Benzenamine, 2-methyl-, hydrochloride)
Tolylene diisocyanate (Benzene, 1,3-diisocyanatomethyl-)
Toxaphene (Camphene, octachloro-)
Tribromomethane (Bromoform)
1,2,4-Trichlorobenzene (Benzene, 1,2,4-trichloro-)
1,1,1-Trichloroethane (Methyl chloroform)
1,1,2-Trichloroethane (Ethane, 1,1,2-trichloro-)
Trichloroethene (Trichloroethylene)
Trichloromethanethiol (Methanethiol, trichloro-)
Trichloromonofluoromethane (Methane, trichlorofluoro-)
2,4,5-Trichlorophenol (Phenol, 2,4,5-trichloro-)
2,4,6-Trichlorophenol (Phenol, 2,4,6-trichloro-)
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (Acetic acid, 2,4,5-trichlorophenoxy-)
2,4,5-Trichlorophenoxypropionic acid (2,4,5-TP) (Silvex) (Porpionoic acid, 2-(2,4,5-trichlorophenoxyl)-)
Trichloropropane, N.O.S.* (Propane, trichloro-, N.O.S.*
1,2,3-Trichloropropane (Propane, 1,2,3-trichloro-)
O,O,O-Triethyl phosphorothioate (Phosphorothioic acid, O,O,O-triethyl ester)
sym-Trinitrobenzene (Benzene, 1,3,5-trinitro-)
Tris(1-aziridinyl) phosphine sulfide (Phosphine sulfide, tris(1-aziridinyl-)
Tris(2,3-dibromopropyl) phosphate (1-Propanol, 2,3-dibromo-, phosphate)
Trypan blue (2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl)bis(azo)]bis(5-amino-4-hydroxy-, tetrasodium salt)
Uracil mustard (Uracil 5-[bis(2-chlorethyl)amino]-)
Vanadic acid, ammonium salt (ammonium vanadate)
Vanadium pentoxide (Vanadium (V) oxide)
Vinyl chloride (Ethane, chloro-)
Zinc cyanide
Zinc phosphide

*The abbreviation N.O.S. signifies those members of the general class "not otherwise specified" by name in this listing.

[Statutory Authority: Chapter 70.105 RCW. 86-12-057 (Order DE-85-10), § 173-303-9905, filed 6/3/86; 84-09-088 (Order DE 83-36), § 173-303-9905, filed 4/18/84. Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-9905, filed 2/10/82.]

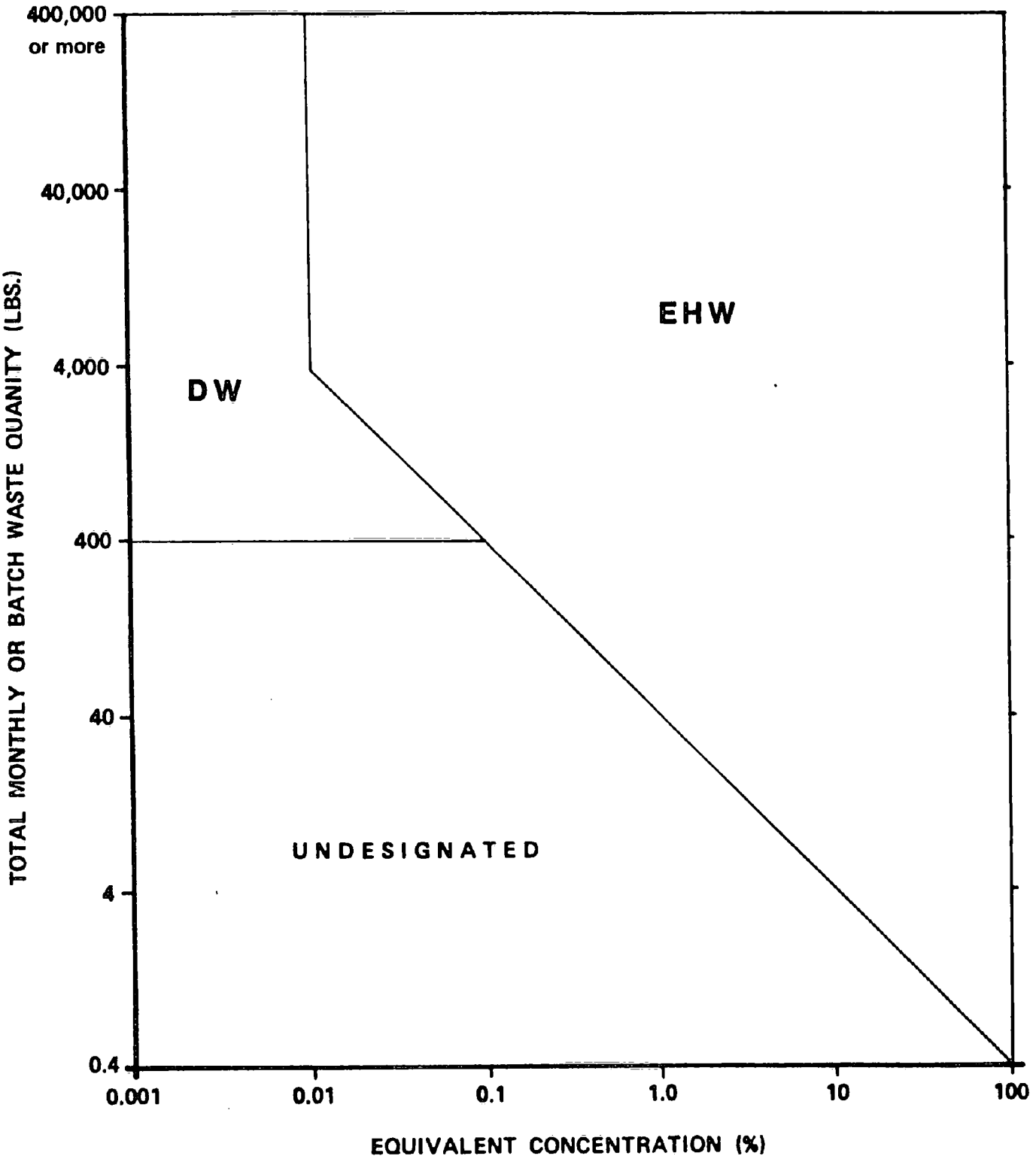
Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

WAC 173-303-9906 Toxic dangerous waste mixtures graph.

SEE ILLUSTRATION
(WAC 173-303-9906, Illus. 1)

[Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-9906, filed 2/10/82.]

WAC 173-303-9906 TOXIC DANGEROUS WASTE MIXTURES GRAPH.

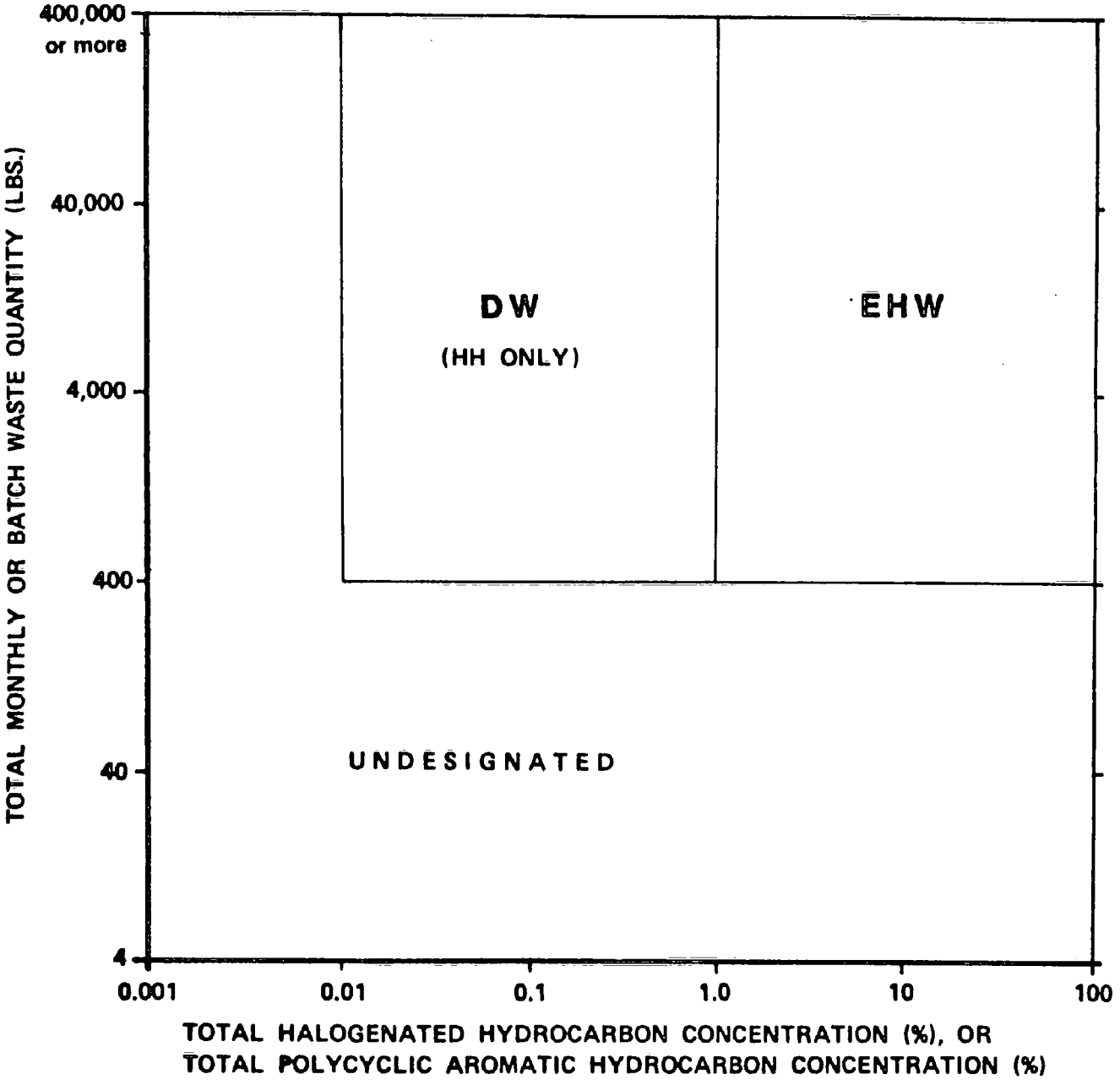


WAC 173-303-9907 Persistent dangerous waste mixtures graph.

SEE ILLUSTRATION
(WAC 173-303-9907, Illus. 1)

[Statutory Authority: Chapter 70.105 RCW and RCW 70.95.260. 82-05-023 (Order DE 81-33), § 173-303-9907, filed 2/10/82.]

WAC 173-303-9907 PERSISTENT DANGEROUS WASTE MIXTURES GRAPH.



WAC 173-303-9901 FLOWCHART FOR DESIGNATING DANGEROUS WASTES.